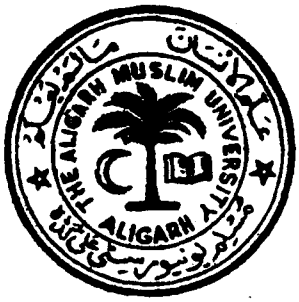

A CRITICAL STUDY OF RUSSELL'S LATER ONTOLOGY

DISSERTATION

Submitted in Partial Fulfilment of the Requirements
for the Award of the Degree of

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IN

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BY

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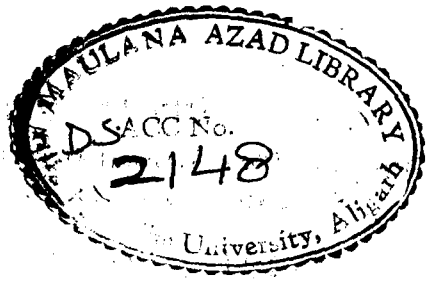

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This is to certify that Jyotish B Chandra Basak has studied under my supervision for his M.phil. degree, and that I am fully satisfied with his work. In my view his thesis is original and fit for submission for the award of M.phil. degree.

(Prof. S. Waheed Akhtar)

T O

M Y P A R E N T S

C O N T E N T S

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P R E F A C E

The name of Bertrand Russell has been in the forefront of philosophical discussion for about ninety years.

The breadth of his interests and variety of his writings have made him one of the most widely read and critically discussed philosopher. If an order is made of his field of interests, ontology would come in third place (after logic and epistemology). Since Russell developed ontological theories while dealing with the epistemological problems, to make the thing easier we have given some epistemological backdrop of his ontological theories. It is expected that such epistemological backdrop will serve as an effective clue to understand his ontological theories properly.

In conversation with the editor of The Philosophy of Bertrand Russell, Russell intimated that his great surprise had come from the discovery that over half of the authors (21 authors contributed essays in that book) had not understood him. Taking cognizance of the above statement I cannot claim with certainty that what I have presented in this dissertation accurately reflects Russell's view. But whenever I found divergence of opinions about any of the theory of Russell among his comentators, I made efforts to choose carefully that view which most closely reflects Russell's own standpoint.

Here I must take the opportunity to express my gratitude to my supervisor, Prof. S. Waheed Akhtar, a versatile personality, who despite his compact schedule was kind enough to go through this dissertation. I have tried to incorporate in this dissertation all of the suggestions made by him.

I am also grateful to the teachers and research scholars, of the philosophy department with whom I have discussed some of the topics. Dr. S.A. Syed (Lecturer) and Mr. Afzal Ahmed (research scholar) deserve special mention in this respect.

In a place away from native state, I encountered many difficulties. Those who helped me immensely in overcoming these difficulties deserve special mention. They are : Ms. Chandrika Basak (pen-name), Mr. Pankaj Sharma, Mrs. Kamalesh Sharma and Mr. Vivek Sharma.

ALIGARH JYOTISH CHANDRA BASAK

14.3.'93

INTRODUCTION

I

An ontological theory always seeks to find its fo dation in a particular type of epistemological theory. One's conception of what there is or what there can be is determined by his approach to the question : What as a human being we can know. Because reality is always a known reality. The unknown and unknowable reality is in a way a self-contradiction.[1] So all ontological questions ultimately can be answered only after thoroughly examining the questions about men's ability and extents to know.

This strategy of founding the metaphysical conjectures in the realm of knowledge was particularly adopted by knowledge was particularly adopted by Berfrand Russell. Philosophically, the beginning of the 20th century was marked by a turn away from metaphysical speculation and heralded a renewed interest in the problem of knowledge. Russell is among the initiators and chief proponents of this approach. But unlike his other fellow philosophers like G.E. Moore and the realists in general he does not leave the ontological questions unanswered or only vaguely or summarily answered. Although basically an epistemologist he does develop a theory, or to be more correct, theories of being. Throughout his long philosophical

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1. The existence of unknown and unknowable reality was admitted by Locke. He admitted the existence of substance but opined that substance is unknown and unknowable.

career he kept on changing his epistemological views depending on which his ontological theories also altered in the different stages of his philosophical development.

It is characteristic of Russell that he developed theories (not a theory) about the problem of perceptual knowledge. No other philosopher can match him in being so self-critical and so open to modify his views in the light of new facts and new data. There are to his credit, broadly, four theories which he developed successively to explicate the nature and extent of human knowledge. He first advanced a particular theory but being dissatisfied with it replaced it by another theory and then in its turn this was also replaced by still another theory.

It is not possible to cover the entire panorama of Russell's views which he advanced during a rather long period of about fifty years. In the present undertaking, an endeavour is made to trace the gradual development of Russell's views. In particular it is aimed at showing how his solutions of ontological problems revolve on solutions of the epistemological questions. Our treatment of the subject here is more expository than critical because Russell himself was the greatest critic of his theories.

II

A study of Russell's philosophy should be preceded by a discussion of the philosophical backdrop against which the

philosopher made his theorization. This is to say that the structure of Russell's theorization has a definite logical historical perspective with which it is inextricably linked both by being a part of it and also by going beyond it.

The problem of perceptual phenomena as it has presented, itself to Russell had a chequered history, particularly in Britain. It is in Britain where perceptionist doctrine originated and flourished throughthe writings of the philosophers like Locke, Berkeley, Hume and J.S. Mill. This empirical tradition was temporarily overshadowed by the ideas of neo-Hegelian thinkers in the late ninteenth and early decades of the twentieth century. But soon the continuity was restored. For this restoration Russell contributed more than any other philosopher.

Outside Britain, the American philosophical scene was dominated by the pragmatists and realists of various hues. They had common among them their antagonism towards idealistic and absolutistic philosophies.

When Russell was grappling with his problem, he continuously interacted with what may be called his philosophical milieu. The inner logical movement of the doctrine of empiricism which, historically found expression in the philosophical systems of Locke, Berkeley and Hume, was ontologically examined by Russell whose first three successive theories were, in essence, variants of dualism, subjectivism

and solipsism which the three philosophers successively propounded. Besides, the phenomenalistic position that Russell at one stage adopted was already adumbrated in the writings of J.S. Mill. Finally, when he came to ahdere to the doctrine of neutral monism, the influence of William James and some other realists on him was more than apparent.

But while Russell allowed himself to be impressed by the theories mentioned above at different stages of his career, he was never a naive or uncritical imitator of them. He was endowed with a strong critical acumen as well as an extraordinary power to create new ideas and arguments. Both originality and criticism were his strong points and they were given full play while making a proposition with regard to the problem at hand. He was liberal in accepting and assimilating an argument which appeared to him cogent. But whenever he did it, he gave a personal turn to the argument so as to make its implication reach beyond the context in which it was originally used.

Russell's problem was to reconstruct a theory of knowledge for providing science with firm logical bases and foundations. He was fully conscious of the challenge posed by Humean scepticism. Many of his contemporaries were prompted by their desire to get rid of the absolutistic and idealistic philosophies which they thought did not suit to the temper and taste of scientific man of the twentieth century. They were merely concerned with "refutation of

idealism" and defense of commonsense. Russell, although, shares much of this so-called scientific taste with his contemporaries, is, however, not naive enough to be content with accomplishing what was at best a negative task. He entered the domain of philosophy to find in it some impersonal and objective truths, which religion was unable to give him. His search for the truth then drove him to mathematics which supposedly contained universal and self-evident truths. At that time there were two kinds of theories which sought to justify the truth of mathematical propositions : one of Kant's which treated mathematical judgements as 'synthetic apriori', and the other of Mill's according to which they were 'empirical generalisations'.

Russell was not satisfied with either of these views and tried in his own way to provide them a philosophical justification. He sought to reduce mathematics into logic so that the former may have the same kind of certainty which the latter possessed. He wrote a number of books including Principia Mathematica (in collaboration with Whitehead) on this subject. But at a time when his work was almost completed in this field, Wittgenstein showed mathematical equations to be tautologies quite devoid of any informative on cognitive content. Russell found this theory logically irrefutable and consequently abandoned mathematics.

Being disappointed with mathematics, he turned to science. But science in its existing form was exposed to

Humean criticism. Two fundamental notions underlying science were the notions of 'induction' and 'causality'. Both of them were shown to be logically incredible by Hume.

The nature of Humean challenge can be better realised if we understand the paradoxical nature of the phenomena of perception and how our commonsensical notions about perceptual knowledge, when philosophically analysed, result into the negation of the very possibility of knowledge.

Commonsense regards perceptual knowledge as a simple presentation of objects to the perceiving mind. It follows from this that objects perceived are public and not merely one's own subjective data. Public nature of the objects of perception means that more than one person can apprehend them simultaneously. We assume that knowledge through senses stands for a direct, unmediated and straight forward acquaintance with what there really is.

Philosophers challenge this view. They contend that all data presented to the senses are private to the perceiver and that two persons can never witness the same data. They also opine that in sense-perception, mind never come across the thing itself. Our knowledge of the external things, they say, is always inferential, indirect and mediated. What is immediately given to the senses is 'ideas' or 'impressions' or 'sense-data'. Some even deny the existence of any material world external to and independent of the mind.

World, according to these philosophers, is nothing but a 'construction' out of sense-data; it is a fancy or figment conjectured by the mind, never really existing.

The argument philosophers invoke to refute the common-sense theory or naive-realism is argument from illusory perception. If the assumption that by means of sense-experience true characteristics of objects are revealed then, they contend, illusions, hallucinations and other commonplace phenomena like dreams etc. cannot be explained.

In illusory perception their exists a discrepancy between the thing real and thing apparent. What is there is not perceived and what is perceived is not actually there. But after all something is perceived - 'something' other than the object itself. This something is called 'sense-datum' by the philosophers. Let us give an example ; a straight stick when dipped into transparent water appears bent. Here we have two appearances of the same object - one straight and the other bent. One of these two appearances must be false since one thing cannot be straight and crooked at the same time. The way to explain this situation is to say that when we saw the stick, we actually did not see the thing itself but something other than it. This something other is called 'sense-datum'.

Philosophers who uphold the theory of sense data apply it not only to the cases where there are two contradictory

appearances of the same object, but to normal cases of perception too. They contend that in all cases of perception, whether veridical or non-veridical, we come across sense-data and for this reason knowledge of the real object (if there is one) is always inferred and indirect.

From above, it becomes clear that the moment the phenomena of illusions, hallucinations etc together with other physical and psychological considerations are taken care of, the naive-realistic assumptions about the knowledge of the external world become entirely implausible. The theory that results out of these considerations is known as 'epistemological dualism', which stands for a duality between the objects directly known and those known only indirectly.

This dualistic theory of knowledge faces a twofold difficulty. First, if sense-data mediate between the mind and material body, then what is the nature of relationship between the former and the latter. Secondly, if our whole knowledge is confined to the sense-data which obviously pertains to the mind, then what justification do we have for our belief in the existence of material objects outside mind ? In order to solve these difficulties many philosophers rejected the belief in objectivity and independence of things and confined knowledge simply to the sense-data which is the possession of mind. But again if the sense-data are exclusively our own private possessions, never objective

and public, the question remains wherefrom do these data come to our mind ? The paradoxical nature of the problem of perception becomes apparent. A host of theories have been forged to solve these problems.

From the above discussion it becomes clear that the belief in an external world consisting of substantial material objects is logically incredible. Our mind is presented with bits of experiences and this is all that we may claim to know to exist. But what about the mind itself which is supposed to be aware of sense-data ? Do we perceive it as something substantial which inheres different data ? Obviously not. The belief in mind as permanent and persisting substance is as incredible as is the belief in substantial physical things. Both are equally unperceived and therefore non-existent.

In this way after elimination of mind and matter, we are left only with momentary data which occur to us in successive moments. At one moment only one dataum occurs. Any belief in the dataum of preceding moment or that of the moment to come would underly the assumption of a persisting mind which has been shown untenable. Thus our whole cosmos, at a given moment, is confined only to the dataum that occurs to us at a particular moment and nothing beyond. Such solipsistic conclusion was drawn by Hume.

British empiricists started with the partial reduction of physical things into their experiences and moved to making

the reduction complete by denying the very possibility of any genuine experience. Locke defined the knowledge of physical things in terms of 'ideas' of what he called the primary and secondary qualities of a thing. Primary qualities, according to him, belonged to things while secondary qualities were merely the powers to produce various sensations in us by primary qualities. The primary qualities were primary and real because bodies retained them in any circumstances and without them the very conception of bodies would be impossible.

Then Came Berkeley. He declared that secondary qualities as well as primary qualities are dependent upon the mind. So they have the same status. Distinction between primary and secondary qualities was denied. Berkeley's famous dictum esse est percipi stands for the reduction of existence of things into their experiences and to make the two terms synonymous.

But the trouble does not end here. Our assertion about our own mind as subsisting the ideas we receive from outside can well be called in question. For, we never come across it. It is never presented to us as the sensibles are, and if so, the whole possibility of knowledge vanishes. Our beliefs in the existence of God, worldly things and even of our own minds is illegitimate. We are compelled to plunge into complete scepticism and solipsism. This position was taken by Hume. He carried the empiricism to its logical conclusion.

He, as Russell said, ".... banished the conception of substance (from psychology) as Berkeley had banished it from physics". Hume first made us cut off from the external universe and get trapped into our own mental world and then removed even the latter possibility, thereby leaving us into complete darkness.

Let us see some of the consequences of such decision. If the logical conslusion of empiricism was scepticism about the physical as well as psychological world, science is also cut off from its roots. Scientific method explains the occurrence of an event in terms of the preceding event of which it is supposed to be an effect. This underlies the assumption that a cause-event is linked with its effect-event in the relation of necessary entailment. But Hume denied any such linking. The feeling of pain and the experience of putting the finger into fire that causes it are two altogether different and independent events and no logical connection can be sought between the two, opined Hume. It is true that, as we recollect, the experience of finger burnt is always in the past followed by pain. But the recollection itself is inferred and, therefore, of precarious nature. Secondly, from the fact that two events have been associated in the past, it does not logically follow that in future also they will be similarly associated.

Science, in fact bases itself upon the inductive method in which one generalises a conclusion which is drawn from a

limited set of observed phenomena. It is, therefore, logically undefensible.

The denial of causality and induction thus not only shook the foundation of scientific knowledge but of knowledge as such. At this juncture a philosophy which could reconstruct the bases of knowledge became the need of the hour. The philosopher who attempted this task was Kant. Kant himself admitted that he was awakened from his dogmatic slumber by Hume.

Kant's reconstruction consisted in synthesising rationalism with empiricism and developing a unique metaphysics. He concurred with the empiricists' contention that what we can know of things are merely their apparent forms, their real nature remains hidden behind these appearances. But the appratus through which we perceive them are such that the order in which things are arranged are genuinely revealed to us. This apparatus comprises space, time, and different logical categories such as quantity, quality, relation, etc. All our knowledge is determinedby our subjective constitution. It is for this reason we can be sure that all of our experiences are universally true.

Apart from this, we all believe that there are certain moral laws which are universally true and valid, e.g., (Stealing is bad', 'speaking truth is good', etc. Now the presence of these moral laws demands justice which means

that a person should be rewarded or punished proportionate to his virtue or vice. Justice, in most of the cases, is not affected in this life. So presupposition of another incarnation after present incarnation becomes necessary. In addition to this, God must have also endowed man with freedom of will since without this there would be no question of reward and punishment. God, freedom of will and life after death are, therefore, basic postulates that are needed for explaining moral phenomena.

The two arguments illustrated above have been based by Kant on 'pure reason' and 'practical reason' respectively. Russell remarked that pure reason was reason and practical reason was prejudice. The latter was implausible on its face value and the former was found bristled with some insurmountable difficulties. For example, if it is asked what makes a perceiver see things precisely in that particular order in which he sees it and not otherwise. Why, for instance, do we always find people's eyes above their nose and not below them. Kant views that eyes and nose cause separate percepts in us but the order in which they are perceived belongs not to them as they are in themselves, but to our own subjective perceptions of them. Science, on the other hand, tells that our different percepts, in their arrangement, must reflect and represent the arrangement out there is the world between things of which they are percepts. Two colour percepts, e.g., must correspond to two different

wavelengths. If Kant is right, all the spatial and temporal relations in our percepts must be arbitrary, not reflecting the real order in the cosmos.

In brief, Kant's reconstructive philosophy, although profound and sublime could not be treated as adequately satisfactory.

III

The criticism of Berkeley and Hume rendered Lock's dualism logically implausible. But the logical conclusion drawn by Hume could hardly satisfy the philosophers of the twentieth century who had a robust faith in science and commonsense. So we see in the first quarter of the twentieth century several philosophers grouped themselves under a common umbrella and tried hard to justify commonsense world view.

In around 1912 some American philosophers formed a group with the objective to dispel the influence of Neo-Hegelian philosophy. They produced a joint work entitled New Realism in which they tried to justify the commonsense assumptions about the knowledge of the world by rejecting the dualistic and idealistic theories.

The new realists were followed by another group of philosophers who accused their predecessors for being uncritical and naive in their approach. They developed a

a new system which, it is claimed, is more consistent and safe because it eliminated the incoherencies of naive realism. They called themselves critical realists. The viewpoint of critical realists was dualistic, i.e., they believed in mediated and indirect knowledge of the external world.

The main task before the new-realist was to reject dualism and subjective idealism and to affirm commonsense. The critical realists aimed at criticising the new-realists and subjectivists while establishing the epistemological dualism. Thus, they jointly opposed idealismbut, at the same time opposed each other in their respective standpoints.

In order to prove their contention about independent existence of material things they simply invoked man's instinctive belief in the externality of things. Critical realists admitted illusions and they confined direct knowledge to the appearances.

The twentieth century American thought found an echo in the contemporaneous British philosophy. Several thinkers emerged in order to combat the idealistic philosophies of their predecessors. G.E. Moore championed the cause of commonsense. He thought he could prove the existence of external world simply by holding out his hands. In a perceptual experience, he opined, what we directly come across is the upper surface of the thing, the sense-datum, which is related to it. But in regard to the question in what manner the two were related, Moore was unclear and baffled.

Apart from Bertrand Russell, whose philosophy we shall discuss in the next chapters, A.J. Ayer also accepted the theory of sense-data giving his own colour to it. But Ayer refused to acknowledge the sense-dataum as a natural entity as Moore, Russell and others did. According to him, using the term 'sense-dataum' is merely a matter of linguistic expediency.

From the foregoing discussion it appears that though the twentieth century philosophers were grappling with the Humean challange they were not aware of their problem in all its depth and complexity. Their primary mission was to dispel and dismantle the influence of idealistic philosophy which they thought to be outmoded and outdated. If the new-realists opposed the representative theory besides idealism, it was due to their fear that the former would lead to the latter. Likewise, if the critical realists opposed new-realism it was because they realised that a support of commonsense assumptions which is doomed to be a failure, may render their own defence of realism doubtful. Of course, it must be admitted that these thinkers were by and large successful in accomplishing at least one task, i.e., refutation of idealism. But the real task of reconstructing knowledge by providing it with a new foundation was not touched upon by them.

Russell's uniqueness among his contemporaries lies in the fact that he was not only fully aware of the graveness of the problem but also tried to resolve it by employing all his abilities. How seriously he took this problem can be

imagined from the fact that for about half a century he remained incessantly concerned with this problem and developed one after another theory to give a satisfactory solution of the problem. He developed one theory but finding that it was not flawless and satisfactory replaced it by another which itself was in turn replaced by a more satisfactory one.

In Russell's philosophy, particularly during the period when he was engaged with the above-mentioned problem, we find at least four distinctive stages. In his first stage he was a candid dualist. He contended that knowledge arises due to confrontation between mind and matter through sense-data. His Problems of Philosophy (published in 1912) represents his ideas at this stage. His second stage is termed 'phenomenalism' Here he explains perception in terms of the mind's encounter with what he calls 'sensibilia' which do not represent but constitute the physical object. This position is discussed in his Our Knowledge of the External World (1914). His philosophy of the third stage is represented in his Analysis of Mind in which he, under the influence of James' doctrine of neutral monism, propounds a non-relational theory of perception. Finally, in the Analysis of Matter and subsequent works, he again altered his views radically and reverted to his original dualistic and causalistic position although in a more refind and sophisticated form.

It is correct that Russell changed his views one after another. But there were certain ideas to which Russell clung

till the last moment of his philosophical career. For instance, he was never a naive-realist or an idealist. About naive-realism he said that only a little amount of critical reflection together with considerations from science is needed to show it implausible. Scientific considerations are perhaps more hazardous, although science starts itself with naive-realistic assumptions.

About idealism Russell's opinion till 1914 was that it was a product of faulty reasoning. Berkeley committed a fallacy when he identified the act of sensation with the object. Berkeley argued that since an object is known to exist only by virtue of its being experienced by the mind, therefore, it must be mental. Russell, on the other hand, said mind's experiencing of the object is mental, because it is an object that we come to know. It is by its nature external to us and therefore a proper subject-matter of physics. Indeed, his preference for the nomenclature of 'sense-data' had behind it the purpose of giving stress to the 'given' and 'presented' character of the object.

Till 1914 Russell considered mind an indespensible thing in explaining the phenomena of perceptual knowledge. But when he replaced dualism by neutral monistic theory of knowledge, the notion of mind as substance, like that of matter, appeared to him redundant. It was replaced by logical construction out of different bits of sensations.

Like naive-realism and idealism, Russell entertained a peculiar opinion about solipsism. On the one hand he regarded it to be logically irrefutable, on the other he thought this doctrine as practically barren and therefore inadmissible. Empiricist analysis of knowledge due to and through its own inner logical dynamics, leads to solipsism. We try to base our belief in physical and mental worlds on experience, but both are experientially elusive. Even two sensations of successive moments can not be affirmed in their interrelated form, for this relation too is not experienced. Thus our whole knowledge at a moment is logically confined to the sensation that is occuring to me at that moment. But Russell was a thinker who had faith in science and solipsism was undermining its root. He tried hard to protect science from the onslaughts of solipsism. He always sought for the grounds which can enable him to dispense with solipsism. But it was admittedly unassailable logically. This impelled Russell to make a compromise.

An important characteristic of Russell's philosophy is that although it is in the tradition of British empirical philosophy, his method is quite different. The method of previous philosophers was largely psychological introspective whereas Russell's method is logical analytical.

IV

In this section we shall give a brief account of Russell's personal life. Russell lost his mother when he was two years old and father when he was three. He was brought up in the

house of his grandfather, Lord John Russell. He admitted that though he was told almost nothing by his father he had gone through exactly the same mental and emotional development as his father had.

Russell's childhood and adolescence were unhappy. The atmosphere of his grandmother's (grandfather died shortly) house was one of puritan piety and austerity, and his lonliness, he said, was almost unbearable. In adolescence, he remarked, he was continually on the verge of suicide, from which, however, he was restrained by the desire to know more mathematics.

Russell was a voracious reader. He used to read in his grandfather's library, which became his classroom. At the age of eleven he began to read Euclid, which was still a prescribed text book of geometry. He was surprised to see that Euclid began with axioms, which had to be accepted without proof. It created great curiosity in him. Russell writes :

> "Throughout the rest of my boyhood, mathematics absorbed a very large part of my interest. This interest was complex : partly mere pleasure in discovering that I possessed a certain kind of skill, partly delight in the power of deductive reasoning, partly the restfullness of mathematical certainty; but more than any of these... the belief that nature operates according to mathematical laws, and that human actions, like planetary notions, could be calculated if we had sufficient skill. By the time I was fifteen, I had arrived at a theory very similar to that of

> the Cartesians. The movement of living bodies, I felt convinced, were wholly regulated by the laws of dynamics, therefore free will must be an illusion. But, since I accepted consciousness as an indubitable datum, I could not accept materialism, though I had a certain hankering after it... ".[1]

At fourteen or fifteen he became passionately interested in religion, and set to work to examine successively the arguments of free will, immortality, and God. For a few months he had an agnostic tutor with whom he could talk about these problems. But soon he lost his faith in religion. He discarded first free will, then immortality and then God. He was very much influenced by Mill. Russell himself admitted that Mill's Political Economy, Liberty and Subjection of Women influenced him profoundly.

Russell's life in Cambridge opened to him a new world of infinite delight. For the first time in Cambridge he found that when he uttered his thoughts, they seemed to be accepted as worth considering. Many stalwarts of philosophy became his friends. Whitehead, McTaggart, G.E. Moore, Henry Sidgwick, James Ward, G.F. Stout are some of them. He fell under the spell of Hegel through Bradly to whose absolute idealism he subscribed but very soon he discarded it.

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1. Bertrand Russell, "My Mental Development", The Philosophy of Bertand Russell, ed. by Paul Arthur Schilpp, The Library of Living Philosophers, Evaston, Illions (1946), p. 7.

After leaving Cambridge in 1984, he spent a good deal of time in foreign countries. For some time he held the post of diplomat. But he had no desire for a diplomatic career and gave up this post in 1894. In 1895 he got married and spent most of that year in Berlin (Germany). Their he studied economics and German Social Democracy. After this travel he settled down in Sussex and devoted his time to philosophy and mathematics.

In the years from 1894 to 1898, he believed in the possibility of proving by metaphysics various things about the universe that religious feeling made him think important. He decided to devote all his life to philosophy. During 1898 various things caused him to abandon both Kant and Hegel.

The most important in Russell's intellectual life was the year 1900. In that year he visited the International Congress of Philosophy in Paris. We have mentioned earlier that ever since he had begun Euclid at the age of elevan, he had been troubled about the foundations of mathematics. When he came to read philosophy, he found Kant and empiricists equally unsatisfactory. He neither liked synthetic a priori nor empirical generalizations. In Paris Philosophy Congress he was impressed by the fact that, in all discussions, Peano and his pupils had a precision which was not possessed by others. He soon mastered Peano's notation and saw that it extended the region of mathematical precision backwards towards regions which had been given over to philosophical vagueness.

Basing himself on Peano's notation, Russell invented a notation for relations. Whitehead also agreed as to the importance of the method and in a very short time they worked out together such matters as the definitions of series, Cardinals, and oridinals, and the reduction of arithmetic to logic. They worked out together what has been titled 'Principia Mathematica'.

After completion of Principia in 1910 he stepped to epistemological and ontological fields which we shall discuss in the following chapters.

At the end of this introduction we give a list of soms of the books written by Russell :

1. Problems of Philosophy
2. Principia Mathematica
3. Introduction to Mathematical Philosophy
4. Our Knowledge of the External World
5. Analysis of Mind
6. Analysis of Matter
7. An Enquiry into Meaning and Truth
8. Human Knowledge - Its Scope and Limits
9. Logic and Knowledge
10. Mysticism and Logic
11. My Philosophical Development
12. History of Western Philosophy
13. An Outline of Philosophy
14. The Principles of Mathematics

15. Portraits from Memory
16. Philosophy of Leibniz
17. Sceptical Essay
18. The ABC of Relativity
19. Human Society in Ethics and Politics
20. The Impact of Science in Society.
21. New hopes for a changing World.
22. Authority and the Individual.
23. Why I am not a Christian
24. Unpopular Essays
25. Power
26. In Praise of Idleness
27. The Conquest of Happiness
28. The Scientific Outlook
29. Marriage and Morals
30. Education and the Social Order
31. On Education

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Chapter - 1

JOURNEY TOWARDS NEUTRAL MONISM : EARLY DEVELOPMENT

Russell began his philosophical career as an Absolute Idealist, so far as ontological analysis is concerned. That is, he maintained that the fundamental stuff of reality was the Absolute Mind. However, in 1898, G.E. Moore convinced him of the inadequacy of his position. The arguments used by Moore, and accepted by Russell, against Absolute Idealism, in the article "Refutation of Idealism"[1] brought about a revolutionary change in the philosophical world.

Before 1903 Russell read Leibniz and Came to the conclusion that many of the Leibniz's opinions were due to purely logical doctrine that every proposition has a subject and a predicate. Leibuiz shares this doctrine with Spinoza, Hegel and Bradley. Russell saw that if this doctrine is rejected, the entire edifice for the metaphysics of all these philosophers is shattered. In his Philosophy of Leibniz, Russell endeavoured to show that monadology was a deduction from certain premises, mainly logical, which Leibniz tacitly accepted as self-evident.

Before we take up the arguments advanced by Russell for refutation of Absolute Idealism, let us first discuss what impelled Russell to refute that theory.

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1. G.E. Moore, "Refutation of Idealism", Mind, (1903), pp. 433-54.

Russell's motivation in the rejection of Absolute Idealism was his desire to establish the irreducibility of relations and a Platonic theory of propositions, which would render them independent of mental activity. Without these, mathematical philosophy is rendered self-contradictory. So with these doctrines he desired to establish the foundations of mathematics. Writes Russell in his "Logical Atomism" : "I came to philosophy through mathematics or rather through the wish to find some reason to believe in the truth of mathematics". Thus while Russell was working on the foundation of mathematics, he accepted dualism to get an adequate basis for the non-self-contradictory character of mathematics.

Russell's objection to idealism of monistic type (represented by Hegel) and monadic type (advocated by Leibniz) is logical, whereas his refutation of Berkeley's idealism rests on empirical grounds. Absolute Idealists assume, Russell views, as its basic principle the doctrine of internal relations, i.e., the view that "every relation is grounded in the natures of the related terms". Absolute Idealism regards the above axiom as equivalent to the assumptions that every relation is really an adjective of the terms taken as a whole and that every proposition has one subject and one predicate. From this view, Russell argues, it follows that there is only one final and complete truth which consists of one proposition with one subject (the Whole) and one predicate.

Russell raised several objections to the axiom given by Absolute Idealists. First, it cannot be carried out, especially in the case of asymmetrical relations. If we try to reduce a relation like 'greater then' to adjectives of the related terms, considered as a whole, we cannot then distinguish the relation from its converse. Consequently, we cannot give any sense or direction to the relation. Secondly, it is absurd on its own grounds. Its fundamental proposition, "There is only one subject and its predicate" is false because it implies a distinction between the predicate and the subject. This demands the assertion of absolute identity in reality, which is incompatible with the idealist thesis of identity in difference.

Russell's criticism of monadology is mainly directed against Leibniz treatment of relations. Leibniz attempted to reduce relations to predicates of individual substances. Russell objected this view on two grounds : First, it cannot convey the sense of an asymmetrical relation either, and second, it is not compatible with Leibniz' belief in a plurality of spirits, which is the essence of idealism. Russell contends that to maintain any form of pluralism the ultimacy of relations must be insisted on.

Russell's refutation of Berkeley is derived from Moore's distinction between consciousness and the object of consciousness. Russell contends that Berkeley's argument is

based upon the fallacy of equivocation. Berkeley uses 'idea' in two different senses : (i) as the object of sensation and (ii) as the sensation itself. In his Problems of Philosophy, Russell writes that Berkeley's theory that the object must be mental seems to depend for its plausibility upon confusing the thing apprehended with the act of apprehension.

Russell's refutation of Berkeley brings us to his dualism of the mental and the physical world. He maintains that every presentation and every belief must have an object other than itself and, except in certain cases where mental existents happen to be concerned, the object is extramental. Mind and matter are the ultimate entities of the world of existence so far as ontological analysis is concerned. Russell's argument for matter is based upon sense-data and certain principles of inference. The argument for mind is based upon immediate experience.

In the preceding paragraph we have mentioned Russell's contention that every presentation and every belief must have an object, i.e., it has an extramental denotation. In this contention Meinong's influence on Russell is evident. Let us discuss this at same length.

Meinong had held the view that every term or phrase which can be subject of a logically meaningful proposition has always its extraverbal counterpart in the physical world. This physical counterpart constitutes its meaning. In order

to prop up his theory Meinong admitted that many strange entities like golden-mountain, round square, unicorn must subsist since they can be used meaningfully as subjects in logical propositions.

Russell found that this theory has certain insurmountable difficulties. One such difficulty is with regard to George IV's *statement in which he wished to know whether Scott was the* author of Waverley. The point is that if Meinongian theory is true, the term 'Scott' and the expression 'author of Waverley' must be substitutible to each other, since they refer to the same entity, viz., the person Scott. But if the expression 'author of Waverley' is replaced with Scott then what George IV wished to know becomes whether Scott was Scott which is absurd.

Another difficulty is that if the law of excluded middle holds then one of the two statements 'Present King of France is bald' and its negation 'Present King of France is not bald' must be true. But if we enumerate all the things that are blad and then that are not bald, we will not find in either of the lists any such thing as 'the present king of France'. Again two statements, e.g., 'The tallest building of America exists' and 'The golden-mountain exist', are of the same logical form, but whereas the former is quite meaningful the same cannot be said about the latter. The latter also cannot be said to be meaningless for its opposite

'The golden mountain does not exist' is true and makes perfect sense.

In the above instances, difficulty arises because, says Russell, we take what is a descriptive phrase as reffering to a definite object which is really not the case. Russell's solution of these difficulties in his theory of description consisted in the elimination of the descriptive phrases by analysing the propositions in which they occur. His conviction is that denoting phrases -- the so-and-so, a so-and-so have no meaning in isolation. Their meaningfulness is determined by the sentences of which they are constituents. Thus, 'if I say', writes Russell, 'Scott was a man' that is a statement of the form 'It was a man' and it has Scot for its subject. But if I say 'The author of Waverly was a man' that is not a statement of the form 'It was a man'.[1]

To ascertain whether a given proposition containing a descriptive phrase of the form 'the so-and-so' is meaningful or not we are required to make a analysis of that proposition. The analysis would be such that the sum total of the analysis must be equivalent with the proposition being analysed.

Thus falling back upon analysis Russell gave a solution to the problem. Complex propositions are analysed into simpler propositions and then into still simpler propositions. This

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1. Bertrand Russell, Logic and Knowledge, Eassays 1901-1950, ed. by Robert Charles Marsh, London : George Allen & Unwin Ltd. 1956, p. 51.

process continues upto the stage where the propositions at hand are further unanalysible. These unanalysable propositions, Russell termed, atomic propositions and have for their subjects and predicates what Russell called 'simples'.

It is clear from the theory of description that according to Russell the descriptive phrase does not name any object, they rather denote the object. That is they stand for the objects with which we have only indirect acquaintance. The word 'Scott' stands for an object which we can directly see or touch. But the expression 'the present king of France' denotes object (existent or non-existent) which we do not directly perceive. Such kind of expressions simply describe the objects they stand for.

When Russell was trying hard to provide a satisfactory solution to the Meinongian ontological theory he still upheld the dualism between the subject and the object. He maintained that a logically proper name always stands for a purely existent object i.e. 'simple' or 'individual'. But he held that we do not know the independently existent objects directly, but through 'sense-data'.

The nature of sense-data is of great importance in philosophy. A wrong analysis of it led many philosophers in the past astray and is still a source of many confusions. In the history of philosophy, it was Locke who held that the qualities (called by him 'secondary qualities') like colours,

tastes and smells as opposed to the primary qualities like shape, texture etc. do not exist in the physical things, but these are sensations produced by the primary qualities. That is, according to Locke, secondary qualities are subjective. Berkeley went a further step ahead and declared that all sensible qualities are subjective. He gave the same status to both primary and secondary qualities. But the difficulty before him and his successors was how to establish an objective world existing independently of our minds. Since, otherwise, all things unexperienced would have to be called non-existent which is contrary to commonsense. It is absurd to say that when we shut our eyes, the table before me cease to exist (since it is not experienced by me).

Russell takes sense-data to be subjective, but not in the psychological sense as Berkeley and others did. He takes it rather in a physiological sense and thereby makes it objectively accessible for physics. The fallacy, according to him, in idealists reasoning is that they fail to distinguish the awareness from the data it is awareness of and argue that since the awareness is mental its data must also be mental. Russell, on the other hand, emphasises the relational nature of our knowledge. The moment we say we are conscious of sense-data, we are already out of the circumference of subjectivity. So Russell concludes that sense-data are really outside the purview of psychology and can be subject matter only of physics or physiology. Since it is only awareness which is

related to the mind, it is plain that in any case of a particular experience, if mind ceases to exist, it is only awareness that would vanish, the sense-data would remain there.

It is interesting to note that there is a striking similarity between the views of Russell and Locke. Both of them admitted that through sense-data we come to know the things. The knowledge of sense-data is called by Russell 'knowledge by acquaintance'. The difference between them is only that for Locke apart from sense-data the thing-in-itself does not become the object of our knowledge. He termed it unknown and unknowable. But Russell opines that through description things-in-themselves become the object of our knowledge this knowledge is derived from and dependent upon sense-data.

From the preceding paragraph it becomes clear that Russell gives the knowledge obtained through acquaintance a foundational status upon which the whole structure of human knowledge is built. But the question arises — what are the objects of acquaintance ? Are sensible qualities the only objects which we know through acquaintance ?

There must be things, contends Russell, besides sense-data which are equally tangible and certain. The first extension that he proposes to make is 'acquaintance by memory'. In any case of remembering, the object being recalled is such that it is directly presented to my mind, although it is a past event. Such unmediated knowledge through memory, according to

Russell, the source of all our knowledge concerning the past.[2]

In Problems of Philosophy, Russell says that 'self-consciousness' is the source of all our knowledge of mental things. So he is broadening the sphere of knowledge. But the knowledge by self-consciousness is not about the self devoid of its content. Whenever we reflect introspectively in ourselves, it is not the bare 'self' which we come across; it is rather thoughts and feelings which are the data of our experience. The question whether we ever come across our bare selves is one that Russell is hesitant to give any categorical answer. On the one hand, it appears that since our acquaintance is only with particular bits of ideas and sensations the self which is supposed to inhere them is as beyond our direct access as are the physical substances. But, on the other hand, there are certain considerations which impel us to believe that we are also acquainted with our selves. In the first place, it is seen that in a particular case of introspective awareness, two elements are obtensively involved, viz, the perceiving subject and the object being perceived. They stand in same kind of relation to one another in which we are related to them. For example, when I am aware of my perceiving the table, the sense-datum which represents the table and the self to which this sense-dataum is represented, are both contents of my

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2. Bertrand Russell, Problems of Philosophy, London, Williams and Norgate (1912), p. 76.

knowledge. Thus, we can say that the whole fact I am aware of is 'self-acquainted with sense-datum'.

Again, when I know that the proposition 'I am acquainted with the sense-datum' is true, I must be aware of the 'I' along with the datum. Here Russell faces a very difficult situation. He writes in his Problems of Philosophy, "Thus in some sense it would seem we must be acquainted with ourselves as opposed to our particular experiences. But the question is difficult and complicated arguments can be adduced on either side. Hence although acquaintance with our selves seems probably to occur, it is not wise to assert that it undoubtedly does occur".[3]

In his analysis of experience, Russell gives fundamental importance to the knowledge obtained through acquaintance which consists of a simple and unanalysable relationship between the subject and its object. Objects of acquaintance are not necessarily those presented to outer senses; they include the objects which we cognise through memory and introspection. Universals are as well data of acquaintance as are the particulars. Self can also be possibly added to the list.

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3. Ibid, p. 80.

What has been discussed so far is predominantly the view presented in Problems of Philosophy. We have seen that in this book Russell has accepted Moore's distinction between the mental act of being aware and the sense-object of which we are aware. The former he called sensation and the latter sense-dataum. He hesistantly here admits the existence of self. He is inclined to think that it could be known by observation, in the form of introspection. Russell, however, admits that there are arguments on the other side, and therefore will not say that acquaintance with ourselves undoubtedly occurs. In the face of this dilemma he concluded that its occurrence seems probable.

Why Russell is so much hesitant to admit the self readily ? What is that thing which puzzled him ? To get a proper answer to these question it will be better to get a cursory look of his predecessors', particularly empicisits' view on this.

It was assumed by both Locke and Berkeley that a man's 'self' is an immaterial substance. Locke explicitly claimed that he had an intuitive knowledge of his own existence, meaning by this the existence of his self. Here Hume shows himself to be more consistent empiricist. He raised the question from what impression this idea of self can be derived. His answer is that there is no such impression.

He further says that all our particular perceptions are different and distinguishable and separable from each other. They all may exist separately and have no need of anything to support their existence. He writes in his Treatise : "For my part when I enter most intimately into what I call myself, I always stumble on some particular perception on other, of heat or cold or light or shade, pain or pleasure. I never catch myself at any time without a perception, and can never observe anything but the perception". He concluded that there is nothing but a bundle or collection of different perceptions, which succeeds each other with an inconceivable rapidity and are in a perpetual flux and movement.

But it is not enough merely to say that the self is a 'bundle of perceptions'. The point is how such a bundle holds together. In other words, how a series of perceptions must be related for them to constitute a single self. And at this point Hume, in the appendix of the Treatise, confesses himself to be at a loss.

The question was taken up again by Mill, whose views on the nature of the mind largely concurs with Hume's. He improves on Hume by bringing in possible perceptions or feelings, and he makes an attempt to deal with the perplexing problem of our knowledge of other minds. But when

he comes to the question of accounting for self-consciousness upon his principles he weakly resigns himself to talking of a 'finally inexplicable fact'.

It has been pointed out in the introduction that Russell was mainly responsible for the revival of British empiricistic tradition. But he rejected subjective idealism of Berkeley. At the same time he could not accept Hume's view wholeheartedly. He saw clearly the solipsistic consequence of Hume's view, and was not ready to give up robust faith in commonsense. That is why he has been oscillating in admitting the 'self' in Problems of Philosophy. Perhaps at this juncture he got a clue to solve this vexed problem in the maxim of Occam's razor. This maxim stands for the reduction of inferred entities and their replacement by logical constructions so that there does not remain any necessity to assert the logically percarious entities. Thus he switched over to phenomenalism.

It is important to mention that when Russell discarded his earlier view, he did it step by step. He first revised his view regarding matter. An elaborate exposition on matter is given in his Our Knowledge of the External World, written in 1914. And then he proceeded with revision of his view on mind which appeared in his Analysis of Mind, published in 1921. In this way finally he reached to Netural Monism.

So the problem at hand is how to establish an independent physical world. Now Russell maintains that sense-data themselves constitute the object of knowledge and are not representative of anything beyond themselves. The view that sense-data represents something of which they are functions is, according to Russell, a product of an unfortunate blending of our two beliefs — one that there must be something persisting independently of being known in sensation and the other that the changing appearance of a thing is due to changes in our position and not in the thing itself. Our instinctive faith in the persistence of objects of knowledge is the root cause of belief in the existence of an independent physical world.

But, strictly speaking, anything we are entitled to assert is that which we experience at a given moment. Matter of physics, even if it exists, is quite elusive to our direct experience. Now Russell holds a peculiar position and reduces physical world into the actual sense-data plus those ones which are possible. He gives the name 'sensibilia' to the possible sense-data.

Russell proposes to reduce substantial material thing into sensibilia which includes both actual and possible sensa. Hypothetical sensa are not experienced; their knowledge is inferred from actual sensa. But the question is why we

infer hypothetical sensa from the sense-data ? Why do we not infer from them substantial material thing ? For Russell, the reason is that the latter involves more risk than the former. Unexperienced sensa are similar in their nature and status with the experienced data, while the material things are radically dissimilar and different. Sensibilia are what are capable of being experienced whereas the things are utterly inexperiencible. Therefore, it is safer to infer the former as against the latter.

It is necessary to make the distinction between sense-data and sensibilia; for whereas the former form our most indubitable knowledge, the latter, being inferred, admit an element of doubt. It is obvious that all sense-data are sensibilia but the converse is not true. Russell illustrates the relation between sense-data and sensibilia by the analogy of husband and man. All husbands are men but not all men are husbands. Moreover, as a man becomes a husband after entering in the relation of marriage so does become the sensibilia, sense-data after being a term of experiential relation.

After reducing the commonsense world into sensibilia what remains for Russell is to provide it with the persistence and permanence as well as objectivity that the former enjoyed. In other words, he had to construct upon the debris of

commonsense world, a real spatio-temporal world consisting only of sensory objects.

Morris Weitz in his article comments that the view that sensibilia exist apart from acquaintance is accepted by Russell as a metaphysical hypothesis which like many of his hypotheses, is justified by the principle of continuity.[4]

The function of sensibilia is to replace the 'matter' and 'physical object' of the Problems of Philosophy. Both of them can be constructed out of sensibilia. By a logical construction Russell means 'the substitution of a symbol whose denotation is given in sense-experience or is continuous with and similar to something given in senseexperience for a symbol whose denotation is neither given in sense-experience nor is similar to and continuous with something given in sense-experience but is postulated as an empirical inferred entity'.[5]

For constructionism, then, a symbol of physical objects no longer denotes an entity which was postulated as the cause of our sense-data and whose intrinsic nature is a mystery to us. Rather it denotes a whole class of appearances which includes sense-data also those sensibilia which, on grounds

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4. Morris Weitz, "The Unity of Russell's Philosophy", The Philosophy of Bertrand Russell, ed. by Paul Arthur Schilpp, The Library of Living Philosophers, Inc, Evanston, Illinois (1964), p. 65.

5. Ibid, pp. 65-66.

of continuity and resemblance, are to be regarded as belonging to the same system of appearances, although there happen to be no observer to whom they are data.

Though Russell was not in a position to say anything substantial about mental world when he was busy with the construction of external physical world, he still remained a dualist, making references to mental facts as those which involve awareness. Sensation is the simplest kind of mental fact. It is to be distinguished from sensibilia and sense-data. Russell writes, "By a sensation I mean the fact consisting in the subjects awareness of the sense-dataum".[6] Russell now opines that the subject is mental because it is a constituent in a mental complex (e.g. sensation) and the only constituent which is not physical. In 'On the Nature of Acquaintance' Russell argued that the subject cannot be known to be either mental or physical because we are not acquainted with it. But in Mysticism and Logic Russell changes his view and says that the subject is inferred as mental because it appears in a mental fact, sensation, which contains no other mental constituent and, therefore, it must be mental in order for sensation itself to be mental. The significance of this argument is that once again we may assert that there are mental particulars, which are defined as those constituents of mental facts that are aware of something.

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6. Bertrand Russell, Mysticism and Logic, Longmans, Green and Co., 39, Paternoster Row, London (1919), p. 152.

It is plain that for Russell world of physics is a construction out of empirical data. From 1914 until 1928 Russell's philosophical contribution consisted, to a great extent, in the formulation and exemplification of the 'method of constructionism' as applied to fundamental natural sciences, physics and psychology.

One of the easy ways to understand constructionism is in its historical setting as a philosophy of science. Since the seventeenth century there have been many philosophies of science. Some of them are : (i) the view that the function of philosophy is to accept completely the results of science and to generalize these results so that they embrace all aspects of reality, including human experience. The philosophy of evolutionism advocated by Spencer is example of this kind of view; (ii) There is the theory of Hume, that the function of philosophy, in relation to science, is to challenge the assumptions of science, specifically, induction, causality and substance; (iii) philosophers like Berkeley regard the function of philosophy, so far as science is concerned, to be one of sharp reconstruction; and (iv) finally there is the view of philosophers like Kant who maintain that the function of a scientific philosophy is the justification of science, either as a method or as a body of knowledge.

But Russell considers the role of philosophy to be the justification of science. Unlike Hume he does not seek to challenge science in order to transform our knowledge into scepticism. Nor does he wish, like Berkeley, to reconstruct science in terms of experience in order to establish some sort of pan-psychism. Russell's challenge to and his reconstruction of science is motivated by his desire to justify science.

Russell's great contribution is his justification of science, considered as a body of knowledge, and not as a set of techniques or principles. It is this which distinguishes him from Kant, since Kant's energy was primarly directed towards the justification of the methodology of science, especially induction.

When a scientific philosophy functions as a justification of science, it is identical with constructionism. There are, in any of the natural sciences, certain symbols for entities which we never experience. The function of constructionism, in regard to these entities, is neither to affirm nor to deny their existence, but to replace the symbols for these entities by other symbols. That is, to substitute symbols whose denotata are either given directly in sense-experience or are similar to and continuous with what is given in sense-experience for symbols whose denotata are not given in sense-experience but are postulated

as inferred entities completely unlike those given in sense-experience. This substitution of empirical for un-empirical symbols means that scientific symbols are defined in sensory terms, which validates the claim of natural science that it is empirical.

The process whereby empirical symbols replace unempirical symbols has two distinct parts : (i) to determine what are the wholly or partially empirical entities, and (ii) to define the symbols of science in terms of the wholly or partially empirical entities.

The determination of the wholly empirical ultimate entities was completed by Russell in his Problems of Philosophy. There he employed two principles in order to establish the ultimate entities of reality : the Cartesian method of doubt and the method of hypothesis. The first gave him the ultimate empirical and conceptual entities, the second the ultimate inferred entities. Instance of the first are sense-data and universals; of the second, other minds and physical objects.

In Mysticism and Logic, Russell accepted completely the doctrine that the wholly empirical ultimate entities are sense-data. Besides these, Russell invented unsensed sensibilia as entities. These are inferred and similar to

and continuous with sense-data, except that no one is aware of them.

It would be wrong to think that constructionism does not employ as ultimate denotata of scientific symbols any inferred entities, because we have seen that Russell admitted unsensed sensibilia in Mysticism and Logic. It is only in the Our Knowledge of the External World that Russell construes constructionism as the method which dispense with all inferred entities as valid constituents of constructions. But in Russell's other constructionist works both wholly and partially empirical entities are employed.

In Our Knowledge of the External World, Russell contends that the only acceptable entities of constructions are the wholly empirical ones, sense-data. Here it is seen that Russell has rejected unsensed sensibilia. Before we discuss the reason for rejection of unsensed sensibilia, let us pay our attention to the method which discloses the ultimate wholly empirical character of sense-data, the Cartesian method of doubt. The method of doubt was first put into practice by Russell in Problems of Philosophy, not upon the propositions of science, but upon ordinary common-sensical propositions. The Problems of Philosophy was opened with the question : "Is there any knowledge in the world which is so

certain that no reasonable man can doubt it ?"[7] This quest for certainity is the distinctive inquiry of constructionism, because it is the result of this quest which comprises the empirical and logical premisses of constructionism. This, then, is the initial task of constructionism : to take a body of propositions and to practice doubt upon them in order to establish a sort of system in which the least dubious propositions constitute the premisses of the entire system of propositions.

In the Problems of Philosophy Russell has evolved a hierarchy of propositions which are most certain. The propositions about which we are most certain are those about sense-data and logic.

In Our Knowledge of the External World another hierarchy has been presented. But he introduced some new technical terms, e.g., 'hard-data', 'soft data'. Hard data are those propositions which are luminously certain and soft data are those propositions about whose truth we are no longer certain when we practice doubt upon them. Russell included our knowledge of the sense-data, logic, recent memory, introspection, relations of time and space, and universals in the category of hard data. Knowledge of physical objects and others mind are included in soft data.

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7. Bertrand Russell, The Problems of Philosophy, London, Williams & Norgate (1912), p. 9.

We shall now return to the basic empirical entities of constructionism as presented in the External World. In this book Russell defined 'unsensed sensibilia' as the functions of 'sensed sensibilia' i.e. sense-data. Thus he completely reduced inferred as partially empirical entities to the wholly empirical entities thus satisfying the requirements of the constructionist ideal : all inferences to unknown entities are replaced by constructions out of known entities i.e. sense-data.

However, again we see a shift in Russell's view in "The Ultimate Constituents of Matter"[8] and in his last two major works on Physics, viz., Analysis of Mind and Analysis of Matter. Here he reverted to the position that the ultimate denotata of symbols of physics are either wholly or partially empirical. In the latter works, the basic wholly empirical entities are perceptual events and the basic partially empirical entities are unperceived events. These are inferred as (i) continuous with perceptual events, by means of causal theory of perception and (ii) similar to perceptual events, with the aid of the general theory of neutral monism. Russell thinks that every concept of physics, e.g., space, time, points, electrons, etc. can be interpreted as a function of these perceptual and unperceived events.

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8. Bertrand Russell, Mysticism and Logic, Longmans, Green and Co., 39, Paternoster Row, London, 1919, pp. 125-144.

In his writings, Russell applied constructionism to the natural sciences. Let us take one example, construction of point, from his External World.

Russell writes, "It is not easy to see any way in which, as independent entities, they (points) could be validly inferred from the data, thus... we shall have, if possible, to find some logical construction, some complex assemblage of immediately given objects, which will have the geometrical properties required of points".[9] The empirical objects which have these requisite properties are sense-data. Now the question is : what are its obvious properties. We know that it is always of some finite extent. Any visual datum, e.g., has a surface which is never ostensibly infinitesimal. Furthermore, a sense-datum, which is prima facie one undivided whole, may upon strict attention, be broken up into its constituent parts. Whenever this phenomenon occurs, we have one part contained within a different part and entirely enclosed by it. The relation of 'enclosure', which is given in sense-experience, is the first property of sense-data which will enable us to define 'points' in terms of them.

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9. Bertrand Russell, Our Knowledge of the External World; The Open Court Publishing Company, London, 149 Strand, W.C., p. 114.

The second requisite property has to do with certain hypotheses which are attributed to the relation of enclosure. What we desire, in order to define 'points' in terms of sense-data and enclosure, is that a set of visual data, considered as volumes or surfaces, should get smaller and smaller so that of any two of the sets there is always one that encloses the other. This desideratum is satisfied with the aid of certain hypotheses. The hypotheses required for the relation of enclosure are :

> "(1) it must be transitive;
>
> (2) of two <u>different</u> spatial objects, it is impossible for each to enclose the other, but a single spatial object always encloses itself;
>
> (3) any set of spatial objects such that there is at least one spatial object enclosed by them all has a lower limit or minimum, i.e., an object enclosed by all of them and enclosing all objects which are enclosed by all of them;
>
> (4) to prevent trivial exceptions, we must add that there are to be instances of enclosure, i.e., there are really to be objects of which one encloses the other".[10]

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10. Ibid. p. 115.

Writes Russell, "when an enclosure-relation has these properties, we will call it a 'point-producer".[11]

Russell added two more hypotheses to guarantee that space is infinite. These two hypothesis are : (i) Any object which encloses itself also encloses an object other than itself, (ii) Next hypothesis is concerned with an enclosure series - i.e., a set of objects in which, of any two of them, one is contained in the other - converging to a point. In Russell's own word : "Let our enclosure series be such that, given any other enclosure series of which there are members enclosed in any arbitrary chosen member of our first series, then there are members of our first series enclosed in any arbitrary chosen member of our second series".[12] When this sixth hypothesis is realized, the first series is called by Russell 'punctual enclosure-series'.

After a long journey Russell now proceeds to define a 'point', as it is conceived by mathematical physics. Point is a logical construction which has as its constituent "... all the objects which enclose members of a given punctual-series". This definition, Russell concludes, is sufficient to express all that geometry requires.

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11. Ibid, p. 115.
12. Ibid, p. 115.

NEUTRAL MONISM

Having adopted the doctrine of phenomenalism, Russell had already travelled half the distance towards neutral monism. The doctrine of neutral monism is the ultimate destination towards which the phenomenalistic analysis of experience logically leads. In phenomenalism we abandon the concept of material things due to its inferred and precarious character. But is not mind, as an independent substance, amendable to the same treatment ? Is not its character as much inferred and therefore precarious as that of matter ? We are never introspectively aware of our bare selves. We infer it from the bits of experiences which it is supposed to abide and inhere. The belief in mind as an independent substance is therefore psychologically not primitive, but derivative. So it should be replaced by something else which it is supposed to be presented to. Thus phenomenalism has paved the way for neutral monism.

The doctrine of neutral monism has a long history. Before we go to trace that history, let us state briefly what is generally meant by neutral monism.

The proponents of neutral monism hold that mind and matter are not two radically different kinds of entities, but both are constructed out of the same 'stuff'. It is not

of course denied that there is some difference between the mental and the physical. But it is said that the difference is one of relations, not of stuffs. The neutral stuff, or the bits of it which may be called neutral entities, may be arranged in different ways according to different types of relation. A group of neutral entities arranged in one way, by vitrue of one set of relations, will be a piece of matter. The same neutral entities arranged in another way, by virtue of another set of relations, may constitute a mind or a series of mental events. The neutral entities considered by themselves, apart from either set of relations, are neither mental nor physical. This is the reason why they are called neutral.

This is a general and simplified outline of neutral monism. Almost all versions of neutral monism fall within this framework. What are the ordering relations of the mental and material worlds respectively is one of the great questions concerning neutral monism - a question to which different versions of the theory provide different answers.

Neutral monism appears to be inspired by two main objectives : (i) to get rid of psycho-physical dualism which has become a contentious issue in philosophy since the time of Descartes, and (ii) propensity towards empiricism. The 'stuff' of the neutral monists is not any kind of hidden

unperceivable substance. It is not something which lies behind and beyond the phenomenal world. It consists in some sort of directly perceivable entities - e.g., sensations, sense-data, colours, etc. Thus if matter is wholly constructed out of any such directly experienceable stuff, there will be nothing in it which will not be empirically verifiable. The same will be true of mind.

Let us return to the history of neutral monism. Before Russell, Earnest Mach and William James propounded this doctrine. Russell's relation to this doctrine is very peculiar. When he was working as a lecturer of philosophy at Harward, he for the first time encountered this doctrine. The time we are referring to is 1914 A.D. His reaction, however, was altogether hostile. His article "On the Nature of Acquaintance"[1] was indeed a polemic against Mach's and James' doctrine. But his subsequent writing like "The Philosophy of Logical Atomism" (an article) marks a gradual realisation about the inefficacy of certain objections he made against the doctrine. Finally, when he wrote The Analysis of Mind[1] (published in 1921) he fully acquisced in it.

It will make our task easier if we give an account of Mach's and Jame's versions of neutral monism before taking up Russell's version.

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1. Bertrand Russell, Logic and Knowledge, ed. by Robert Charles Marsh, London : George Allen & Unwin Ltd. (1956), pp. 125-174.

EARLY HISTORY OF NEUTRAL MONISM :

Earnest Mach in his Analysis of Sensations (first published in 1891) asks the question what grounds do we have for our belief in substance-concepts - physical as well as mental ?[2]

The table upon which I write is one that I have purchased five years ago. It has lost much of its shine. It has become a bit rough and has a number of spots of ink. It varies its colour according to the colour of light in the room. It completely disappears when I shut my eyes or when the light is put off. But despite all the changes that it has undergone I believe that it is the same table which I purchased five years ago.

But where is that unchanged and permanent thing, i.e., table. Is it not that it is our sheer habit of thinking in a certain way to reify an otherwise non-existent entity.

What is true of physical substance is also true of mental substance. Suppose I am thinking over some philosophical problem. I exert my mind but nothing happens. I feel a little embarassed. But then suddenly I solve the problem and feel happy and relieved. Now I say that there is a

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2. Earnest Mach, The Analysis of Sensations, revised and supplemented from the fifth German edition by Sydney Waterlow, Chicago and London : The Open Court Publishing Company (1914). Ch. "Introductory Remarks : Antimetaphysical"

permanent and persistent 'I' which is busy in philosophising, which thinks one idea after another which feel embarassed and then happy. But where this permanent 'I' comes from ? What actually happened is merely a connected and concatenated series of bits of sensations, which we falsely claimed as belonging to a subsisting entity 'I'. This 'I' is never experienced and is therefore utterly non-existent.

A critical reflection in this way eliminates both mind and matter and leaves only sensations about which it was hitherto supposed they were presented to mind and produced by matter. This sort of analysis may roughly be called as neutral monistic analysis of knowledge. As it is clear from the above explanation, it denies the relation that is said to be holding between the knowing mind and matter. There is no matter to produce sensations and there is no mind to receive them. Sensations themselves are the sole material out of which this universe is built up. These sensations when arranged in one way constitute the subject matter of physics and when in a different way, that of psychology.

According to Mach, a physical body consists entirely of sensations or what he himself prefers to call 'elements' such as colours, sounds, tastes, etc and nothing beyond. But from the very fact that they are sensations modifiable by our sensing them, he says, it can be concluded that they

are also mental. Mach also argues for the neutrality of sensations by invoking the fact that the so called mental and physical phenomena can interact assuming obviously the Cartesian idea that two substances of entirely different kind and character cannot interact.

It may be objected that if sensations are only reality known to exist how can we account for the two functionally and radically different phenomena, viz., physical and psychical. We have a vivid and conspicuous knowledge of the bodies of our fellow men but we have not even the faintest idea of their minds which, we think, must be attached to their bodies as owis is attached to our own. For Mach, we can diffuse the physical and psychical phenomena into each other while yet retaining the distinction between the two. This can be accomplished by forming two groups in which the same elements occur with relations of a different nature. The element A (say, colour) is physical as long as it is studied and observed in its relation to various other colours (say, B) or sounds (say, C). But the same A becomes psychical when it is abstracted from its relation to B and C and observed in its relation to some previous knowledge (memory) of colour (say, $\mathcal{A}$) or corresponding memory of sound (say, $\mathcal{B}$).

William James approaches this doctrine from the standpoint of a psychologist. A clear outline of this doctrine

was given by James in his work Essays in Radical Empiricism.[3] Even in his Psychology, James gave an incomplete version of it. In Essays he changed some of his earlier views. In Psychology James does not reject 'consciousness' as an independent substance, and even regards it as a fundamental datum of psychology, still an unconscious urge to dispense with it is fairly discernible in him.

In his Psychology, James described four important characteristics of consciousness : (i) every state of it is subjective, (ii) it is in a state of constant flux, (iii) the flux or continuity of consciousness is experiencible, and (iv) it never comprehends its objects in their entiriety but always chooses the appropriate part of them. While the first and last characteristics later constituted the bases of Jame's celebrated pragmatic theory of truth, the second and the third, in which the changeable and fluctuating character of consciousness has been emphasized, paved the way for his future abandonment of consciousness as an independent substance.

The central idea of his new philosophy, is stated by W. James in the following words :

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3. William James, Essays in Radical Empicism, Longmans, Green, and Co., 39 Paternoster Row, London (1912).

> "My thesis is that if we start with the supposition that there is only one primal stuff or material in the world, a stuff of which everything is composed, and if we call that stuff 'pure experience', then knowing can easily be explained as a particular sort of relation toward one another into which a portion of one experience may enter. The relation itself is a part of pure experience; one of its 'terms' becomes the subject or the bearer of the knowledge, the other becomes object known".[4]

James claims to explain in terms of his theory, a paradox which, in his view, is one of the most puzzling questions in philosophy from the time of Democritus. The paradox is this : In common paralance the experience is considered to be a simple confrontation of mind with its object. At present I am seeing the room, table, pen etc which I think belong to the outside world. But in so far as I am perceiving them they are also inside my mind. The problem is how what appears to be only one reality can simultaneously exist at two places. Dualistic or representative theories contrive an idea which they say represents the outside thing

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4. Ibid, p. 4.

and belongs to the mind. But according to James, this 'idea' is never experienced. He contends that mind unmediatedly encounters its objects in every case of experience.

The puzzle, says James, can be easily unravelled if we abandon our habit to think mind and material things as being two opposite realms of being. There is only one identical room i.e., its pure experience upon which two different sorts of processes converge. Just as the point of intersection of two lines is virtually one but yet can be said to be belonging to two different lines, in the same way, one identical room can be said to be existing at two places at once.

There are two processes going on simultaneously in the universe. One of these consists of sensations, emotions, volitions, in short, what we call ordinarily mental occurrences. This process belongs to the personal biography of the perceiver. The room-experience, when it enters into this process it is loosely called mental. The other process in which the same room-experience enters comprises a number of physical operations such as carpentering, furnishing, etc. This process is utterly independent of any one's experiencing them and is the physical history of the room.

Occurring in these two processes the experience also changes its character. As a physical room it can be experienced

by any number of people; as a mental room it is strictly personal and private. As a physical room it will take a certain amount of time and labour to demolish it but as a mental room it can be destroyed in a second - simply by closing the eyes.

Though our main concern is ontological, still it will be an interesting discussion as to how James proposes to solve the epistemological problems. According to James, knowledge is either a direct confrontation of one experience with another one, or a process in which one experience passes through certain intermediary experiences into another experience. In any case, it is the experience itself that is knower and that is known; the transcendental mind (to experience) and the transcendental thing-in-itself (to be experienced) are both non-existent.

It may be objected that if it is the experience itself which functions at one time as thing and at another time as thought, then how are the two phenomena qualitatively so different. A thing is extended, coloured, hard or soft, smooth or rough, but the thoughts can never possess these qualities.

James disposes of this objection by saying that thoughts do possess the qualities that the things are said to possess. The thought of fire is as hot, as hot is the

actual fire and the thought of river is as wet as the actual river. The two phenomena differ only in that while the experience qua thing is active and effective, qua thought lacks these characteristics.[5]

It may be mentioned here that Jame's neutral monism was at bottom an epistemological and not a metaphysical doctrine. His 'pure-experience' was not a metaphysical substitute of mind and matter. Metaphysically, he was a pluralist believing in the multiplicity of experiences - all as the ultimate ontological constituents of the universe. It were in fact some of his followers, later on known as New-Realists, who transformed it from a theory of knowledge into a theory of reality.

Russell's Version :

Mach approached the theory of neutral monism from the side of physics and James from the side of psychology. Russell approaches it from the standpoints of both physics and psychology, but interestingly enough, a physics unknown to Mach and a psychology unknown to James. The first two decades of the present century witnessed a great change in physics whose repercussions were also felt in the other domains of knowledge, particularly philosophy. Quantum

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5. Ibid, p. 33.

physics and the theory of Relativity metamorphosed the traditional notions of space, time and matter. The notion of absolute space and absolute time was replaced by a relative space-time continuum and the traditional notion of matter ceased to be as an entity extended, indestructible and substantial. Matter rather came to be considered as a mathematical construction out of inconceivably abstract entities.

A corresponding revolution was created in the realm of psychology by the Behaviourists. Behaviourism was a culmination of reductive tendency in psychology which made its first appearance in the late nineteenth century in Germany. Psychology got rid of 'consciousness' which it has hitherto regarded as its fundamental datum.

At that time there were two opposite tendencies in the orbit of science - one eviscreting matter of its 'materiality' and other eviscreting mind of its 'mentality'. Russell thought himself to find in the doctrine of neutral monism a meeting ground, a conflux of these two confluent tides of modern knowledge. His Analysis of Mind is mainly directed towards this goal. He opens the preface with the following words :

> "This book has grown out of an attempt to harmonize two different tendencies,

> one in psychology, the other in physics, ..., although at first sight they might seem inconsistent. On the one hand, many psychologists, especially those of the behaviourist school, tend to adopt what is essentially a materialistic position, as a matter of method if not of metaphysics. They make psychology increasingly dependent on physiology and external observation and tend to think of matter as something much more solid and indubitable than mind. Meanwhile the physicist, especially Einstein and other exponents of the theory of relativity, have been making 'matter' less and less material. Their world consists of 'events', from which 'matter' is derived by a logical construction".[6]

Russell clearly elaborated the possibility of a reconciliation between the two in the same preface. He writes :

> "The view that seems to me to reconcile the materialistic tendency of psychology with the anti-materialistic tendency of physics is the view of William James

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6. Bertrand Russell, Analysis of Mind, London : George Allen & Unwin Ltd., 1921, p. 5.

> and the American new realists; according to which the 'stuff' of the world is neither mental nor material, but a 'neutral stuff', out of which both are constructed".[7]

It has been mentioned earlier that Russell's reaction to the doctrine of neutral monism was first hostile and he rejected the theory. Let us first discuss the grounds on which he rejected the doctrine and then we shall see how did he do away with them.

From the epistemological point of view there are two sources of the doctrine of neutral monism. One is the assumption that what is presented to the mind unmediatedly must be part of it and the other is the belief that physical things can be unmediatedly presented to the mind. It was the assimilation of physical things with mind which led Mach and James to their belief in the neutrality of the world stuff. Neutral monists, by emphasising the first rejected the 'content theory' and by emphasising the second refuted idealism. Russell's phenomenalism and the doctrine of neutral monism were in fact half way houses between the content theory and subjective idealism.

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7. Ibid, p. 6.

It may be seen that the real issue was the existence of mind. If mind existed, neutral monism was wrong and if did not exist, Russell's phenomenalism was incorrect. Russell's main objection against neutral monism was based upon its inability to explain the mental occurrences. And as soon as he was able to explain these purely in physiological terms, he abandoned phenomenalism and accepted neutral monism.

Russell first criticised James' view pointing out that according to James in case of experience what is experienced comes into contact with another experience and not with any subsisting mind. That whether a given patch of colour is experienced or not depends, according to this view, upon whether or not it is related to some other experienced objects. One could experience the colour only when he has already experienced at least one coloured object. But Russell thinks it to be absurd. He thinks that it is not possible to have an experience in absolute isolation. The possibility of having an experience in absolute isolation falsifies the neutral monist's belief that an occurrence can become experience only after coming in relation with another experience.

Another difficulty which prevented Russell from accepting the neutral monistic theory was its inability to explain 'belief'. 'Belief' is different from 'sensation'

in that whereas the latter has always a reference to some outside object, the former lacks any such reference. For example, when I believe in the proposition 'Today is Wednesday' there is no such entity called 'today is Wednesday' to which my belief is directed. In fact, belief is always about 'propositions' or 'judgements' not about 'things' or 'facts'. Although we speak of our belief or disbelief in God as if it is some object, really it is not object in the logical sense of the word. It is description and our belief in its simply means that we believe that there is an entity answering this description. Beliefs, thus, in all cases are objectless. But yet they perform a cognitive function. It follows therefore that there is necessarily a mind which knows something although no physical presentation of any kind is involved.

Analogous cases in which the supposition of a mind seems to be necessary are those of memory and thoughts of non-temporal objects; when I remember an event which happened an hour ago, the same event is not presented to me now. It is a replica of the previous event and being so it must be slightly changed. Now the alteration in the character of the event recollected can either be explained by assuming a mind whose contact with event is responsible for the change or believing that our present knowledge is mediated by some idea which represents the original event. The latter

possibility is upheld by the protagonists of content-theory and neither Russell nor neutral monists can accept it. Neutral monists reject the former possibility too and thus fail to explain this important phenomena.

Apart from the above points Russell has shown many flaws of neutral monism. We shall not illustrate all of them here. Only one point which Russell explained very elaborately in 'Analysis of Experience'[8] will be summarised in the next paragraph.

According to Russell, 'emphatic particulars' (viz, 'this', 'I', 'now') render the theory of neutral monism unacceptable. 'This' is a proper name which applies to an object to which I attend at a given moment. The subject that attends to 'this' is called 'I' and the time at which 'I' and 'this' come in relation to each other is called 'now'. There is observed a peculiar intimacy and immediacy between 'I' and 'this' and 'I' and 'now' which is quite absent in 'I's relation to other objects and at other times. Neutral monism does not give any satisfactory explanation of this peculiar relationship.

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8. Bertrand Russell, Logic and Knowledge, 'On the Nature of Acquaintance', London : George Allen & Unwin (1956), p. 159.

Writes Russell : "for these reasons.... I conclude that neutral monism, though largely right in its polemic against previous theories, cannot be regarded as able to deal with all the facts, and must be replaced by a theory in which the difference between what is experienced and what is not experienced by a given subject at a given moment is made simpler and more prominent than it can be in theory which wholly denies the existence of specifically mental entities".[9]

Period of acceptance :

Despite the above objections there were certain things in neutral monism which attracted Russell. Perhaps most important among them was that it is in line with the principle of Occam's razor , which he regarded as the supreme methodological maxim in philosophizing. We have seen in the last chapter that Russell had abandoned the notion of 'substance' from physics in his phenomenalism following Occam's razor. Acceptance of neutral monism amounted to nothing but to further carry out this plan. That is by this means he could do away with 'mind' as well, which was admittedly a 'soft dataum'.

The other reason which made neutral monism acceptable to Russell was that it conformed to the results of various

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9. Ibid, p. 159.

emergent trends in science. Physics asserted that the matter is not a substantial, extended entity; but a remote supra-sensuous construction, connected no doubt with sense, but only through a long chain of intermediate inferences. Physiological psychology, on the other hand, said that the immediate data of sense should be the subject matter of psychology rather than physics.

In the preceding chapter we saw that Russell admitted possible 'sensibilia' besides those actual. An aggregate of closely resembling sensibilia constituted the 'physical thing' and its relation to mind constituted knowledge. On this ground he admitted mind because he thought it unavoidable in explaining the essentially relational character of knowledge. Now if the theory of neutral monism were true, the supposition of mind was also unnecessary. The sensibilia themselves would do the function of a thing as well as of a mind.

Since there were in neutral monism minimum of assumptions to be made in explaining knowledge, Russell felt strongly inclined to accept it. At the same time he found certain insurmountable difficulties in the doctrine. Important among them were those derived from the considerations about 'emphatic particulars' and 'beliefs'. Russell's attitude towards this theory at this stage is indeed very intricate.

There appears to be in him a struggle what he believed and what he ought to believe. In time, it was the former which got the upper hand. He strirved hard to find arguments which may enable him to dispense with the various difficulties. In his Logic and Knowledge he wrote :

> "... the whole theory of neutral monism is pleasing to me, but I do find so far very great difficulty in believing it. You will find a discussion of the whole question in some articles I wrote... I should really want to rewrite them rather because I think some of the arguments I used against neutral monism are not valid".[10]

From the above discussion it becomes clear that Russell foresaw a possible solution of his problem in neutral monism, but at the same time he was aware of certain formidable difficulties of this theory. Though he raised many interesting points at this juncture, these were related to mainly epistemological inquiries. We shall now proceed to Russell's formulation of neutral monism.

In the first chapter of his Analysis of Mind Russell writes :

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10. Ibid, p. 222.

> "The stuff of which the world of our experience is composed of is, in my belief, neither mind nor matter, but something more primitive than either. Both mind and matter seem to be composite, and the stuff of which they are compounded lies in a sense between the two, in a sense above them both, like a common ancestor".[11]

This primitive stuff (mentioned in the quotation) consists of 'aspects'. In the Analysis of Mind he generally calls this primitive stuff 'sensations'. It should be borne in mind that Russell now gives up the distinction between sensations and sense-data. He believes the physical world to be constructible out of sensations. Again, these elements are also supposed to enter into the construction of mind. So one and the same sense-datum be a constituent of both a mind and a table. Apart from the fact that there were also images and feelings, which entered only into the construction of minds, the difference between mind and matter was not a difference of substance, or content, but a difference in the arrangement of common elements. Whether a group of sense-data constituted, or helped to constitute, a mind or a physical object depended on the ways in which its members were related.

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11. Bertrand Russel, Analysis of Mind. London : George Allen & Unwin Ltd., (1927), p. 10.

Thus Russell has reached to the conclusion that "psychology and physics are distinguished by the nature of their causal laws, not by their subject matter".[12] Ronald Jager in his The Development of Bertrand Russell's Philosophy comments that Russell has approached the problem with a modest dogmatism. Writes Jager :

> "Russell approaches the subject with a modest dogmatism : a definite solution to the venerable problems of mind and matter, and the painful mystries of Cartesian interaction is possible... along the lines marked out, but his (Russell's) may not be an entirely accurate exposition".[13]

Before taking up the detailed discussion of Russell's monism let us enquire into the genesis of the concept of sensation. In lecture VIII (titled "Sensations and Images") of his Analysis of Mind, Russell gave an account of sensations. In the beginning of the chapter Russell says :

> "If the two sorts of causal laws could be sharply distinguished, we could call an occurrence 'physical' when it obeys causal

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12. Ibidm p. 287.
13. Ronald Jager, The Development of Bertrand Russell's Philosophy, London : George Allen & Unwin Ltd. (1972), P. 322.

> laws appropriate to the physical world, and 'mental' when it obeys causal laws appropriate to the mental world. Since the mental world and the physical world interact, there would be boundary between the two : there would be events which would have physical causes and mental effects, while there would be others which would have mental causes and physical effects. Those that have physical causes and mental effects we should define as 'sensations'."[14]

Giving this initial definition Russell says that this definition would have all the precision that could be desired if the distinction between physical and psychological causation were clear and sharp. But as a matter of fact the distinction is by no means so sharp. Moreover it also suffers from the fact that an event may be an effect of several causes according to several causal laws : we cannot in general point to anything unique as the cause of such and such an event.[15]

Due to the above flaws of the given definition Russell proposes to develop a different definition. He

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14. Op.Cit. p. 138.
15. Op. Cit. P. 139

distinguishes sensation from perception somewhat as being raw material as compared to the finished product. Sensation is the analytic 'core' of perception, arrived at by a theoretical reduction of the fullness of perceptual experience to a logical and causal minimum. Perception of external objects comprises not only sensory encounter but also association, habit memory, classification and much else. Says Russell, "In order to arrive at what is really sensation in an occurrence... we have to pare away all that is due to habit or expectation or interpretation".[16] Perception is sensation clothed; sensation is perception naked, remarked Ronald Jager.

Sensations never exist alone. They are isolated by thought but not in our actual experience. Sensation is not knowledge, though it is indespensible for empirical knowledge. There are some passages in his Analysis of Mind where Russell says that we could, by careful attention, actually isolate and focus on the sensational component of perception. But some commentators, e.g. Jager, say that this is not his principal idea. Figuratively it has been said that sensation stands to perception in somewhat the same way in which the letters of words stand to the sense of the sentence. The central logical feature of sensation and perception is put by Jager thus : "We sense sensations when we perceive

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16. Ibid, p. 140.

physical objects. In sensation there is no act/object distinction..."[17]

We have tried to give an account of constituents (i.e., sensations) of physical and psychological world. Here Ronald Jager has made extensive survey of Russell's opinion and levelled several objections against Russell's view. We shall not discuss these objections here and directly proceed to see how Russell did away with mind by his neutral monism.

In the first chapter we have seen that Russell admitted the existence of mind in his Problems of Philosophy. He admitted, though hesitantly, the possibility of being acquainted with the bare self. His argument was that when we perceive any object, what we perceive is the complex 'self-acquainted with object'. Hence both the object and the self are in some sense objects of awareness. But in Our Knowledge of the External World, he denied this possibility saying that it is not introspectively revealed to us. He, however, admitted its knowledge as knowledge by description. He was then quite convinced about its indespensability in explaining various mental occurrences. But as soon as he was able to explain these mental occurrences in non-psychical terms, he rejected the phenomena altogether. In the first

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17. Op.Cit. p. 333.

chapter of his Analysis of Mind, he surveys 'recent criticism of consciousness' and concludes that it cannot justly be claimed as existing.

What characterises in the main the mental phenomena is consciousness. There are different ways of being conscious viz. by perceiving, by remembering etc. What is common in all these different ways of being conscious is their object-directedness. We are always conscious of something. The consciousness and its object seem to be two distinct terms, their relation being irreducible. In traditional psychology, the knowledge consisted of three elements : the act (i.e. consciousness), the content and the object. Russell had already assimilated the object into content by saying that the former were a function of the latter. He now endeavours to give a similar treatment to the remaining element, i.e., act or subject. The act or subject is also rendered a construction out of different bits of sensations which it was hitherto considered to be presented to.

Consciousness should be disbelieved because it is not an object of acquaintance; nor is it indespensible in explaining facts. Following Mach and James, Russell too seeks our faith in consciousness as a persisting entity in our false language habit. We say : I think so and so', and it seems that there is something 'I' which is

transcendentally related to some object. But this is a false conclusion. There are, in fact, only thoughts collected into bundles such that one bundle is of my thoughts, other is that belonging to another person and so on. Thoughts of one collection are related to each other and it is their relation that constitutes the consciousness. A thought as subject comes in contact of another thought which functions as an object to the former thought and in this way the event called knowing occurs. 'I' as a permanent substance is not an element in this relational system and therefore its supposition is superfluous.

It is important to mention here that Russell, in denying mind and consciousness, does not deny mental phenomena altogether. Behaviourists deny wholesale the presence of images, feelings etc reducing them into some psychological change in the body. Russell does not go to that extent. According to him, we can deny images of other minds. But we cannot deny our own images. The presence of 'images' is unquestionable on purely experiencial grounds. We can think of a friend sitting in the chair although the chair is empty. He, however, says that talking of images as mental does not imply that they belong to some transcendental substance.

It can be safely stated that according to Russell mental life consists wholly of sensations and images. A

distinction between these two constituents becomes essential.

Traditionally, it is believed that sensations are vivid and active whereas the images are faint, fleeting and momentary. But Russell thinks that although these are characteristics which usually distinguish images from sensations, they do not do so invariably.[18] What in the last analysis differentiates them is the difference of context. Sensations are caused by stimuli external to nervous system on brain. Images, on the other hand, are caused by their association with sensations. Images too, like sensations, have causal relation to the outside physical object. But the object in this case belongs to the past and not to present. They are copies of sensations which we experienced of an object in the past.

Moreover, images are private is a sense in which the sensations are not. A sensation seems to give us knowledge of some external thing while images appear to be internally excited. They, therefore, give knowledge of what is within ourselves. Images are thus quite similar to sensations in their intrinsic nature, they differ only in their being inside the brain. In other words, it can be said that they observe causal laws different from those observed by

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18. Ibid, p. 109.

sensations.[19]

Russell indeed says that there are operating two kinds of laws in our universe. There are things subject to physical laws (such as physical things) and there are things subject to psychological law (such as images). Sensations are subject to both laws and are therefore neutral physically and psychologically. There are no mental substances. The world is made up of the same stuff. It is only different sort of laws that make one particular be called mental and the other physical.

Having rejected mind as a transcendental substance what remained for Russell to do was to construct a logical substitute which could do all the functions that were previously done by the subject. In 'Lecture VII' of his Analysis of Mind he made an attempt to perform this task, and to derive from it a definition of perception.[20]

In Our Knowledge of the External World, Russell, while constructing a logical substitute of material things, devised two ways of collecting together the particulars (in his own word 'sensibilia'). One way was to group them according to what he called the 'laws of perspective'.

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19. Ibid, p. 110.
20. Ibid, p. 124.

Given any particular we find that there are around it a number of other particulars which differ from it in gradually increasing degrees. This change is due to the change in perspective. A chair at a given moment gives a number of appearances when seen by a number of persons. The appearances differ from each other following the laws of perspective.

In the Analysis of Mind, Russell again gives a description of the laws of perspective. Here he maintains that we can theoretically collect together a number of particulars which may be defined as the 'aspects' or 'appearances' of one thing at one time. This set of particulars (i.e., those particulars which constitute one thing at one time) is called by Russell a 'mometary thing'. In the preceding paragraph we have given the example of chair. Borrowing a term from Russell we can safely say that the set of appearances of a chair (at a given moment) is equal to 'mometary chair'. Now Russell says that to define that series of 'momentary things' that constitute the successive states of one thing is a problem involving the laws of dynamics.[21] So what appears is that "a momentary thing is a set of particulars, while a thing (which may be identified with the whole history of thing) is a series of such sets of particulars. The particulars in one set are collected together by the laws of perspective; the successive sets

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21. Ibid, P. 125.

are collected together by the laws of dynamics".[22]

Russell is ready to revise this two-fold way of arranging particulars (what has been stated in the last paragraph) and build up a construct which will be a substitute of mind-substance. He writes clearly : "Instead of first collecting together all the particulars constituting a momentary thing, and then forming the series of successive sets, we might have first collected together a series of successive aspects related by the laws of dynamics, and then have formed the set of such series related by the laws of perspective."[23] Russell has explained his view by a beautiful example of an actor on the stage. But since we have earlier taken the example of chair, it will be convenient to pursue that example itself. In the case of the chair, the first plan would be to collect together all the aspects which it presents to different observers at a given moment and then to form a series of such collections or sets belonging to other moments. The other plan is to collect together all the aspects which it presents in successive moments to a given observer and then to do the same with other observers. A set of such series would be the 'mental chair', or 'biography' of the chair in Russell's own words. The second plan in which we form a

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22. Ibid, p. 126.
23. Ibid, p. 126.

set of series instead of a series of sets will be a concern of psychology instead of physics. For it tells us not what the chair is but what impressions it is producing for me.

It is clear that according to Russell every particular has a two-fold location. It is simultaneously a member of two groups : on the one hand it is a member of the group which constitutes the objective physical thing and on the other it belongs to 'biography'. For instance, when I see a star, my seeing of it has a dual reference. On the one hand it belongs to a group of particulars which is objectively existing in the perspective space and is studied by physics. And on the other hand, it is a part of the observer's personal biography and is a subject matter of psychology.

It should be borne in mind that when Russell speaks of biography, he does not necessarily mean by it the mind. The observer may be a human being or a camera or dictaphone. A camera will record the occurrences on its plate in the same manner as they are recorded by us in our brain. Russell clearly writes : "Our twofold classification of particulars gives rise to the dualism of body and biography in regard to everything in the universe, and not only in regard to living things... This dualism has

nothing to do with any 'mind' that I may be supposed to possess; it exists in exactly the same sense if I am replaced by a photographic plate".[24]

The only difference between the nature of experience by a photographic plate and that of a living organism is that while in the former the occurrence is a mere occurrence, in the latter it leads the observer to recall some previous occassion on which he had experienced the same occurrence, or some occurrence which is related to it. This fact of an experience of present moment being correlated with a similar experience that occured in the past is what Russell calls 'muemenic phenomena'.[25] It characterises the experiences of living organisms as against those of photographic plates. Human beings perceive while the photographic plates only sense.

In the subsequent phase of his philosophy, Russell retained his position of the neutrality of ultimate occurrences constituting the universe. He, however, again changed his epistemological standpoint. Since our primary concern is his ontology, we will not enter into that discussion.

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24. Ibid, p. 129, 130.
25. Ibid, p. 131.

Chapter - 3

C O N C L U S I O N

It has been mentioned in the preceding chapter that Russell retained his position of the neutrality of ultimate occurrences constituting the universe during the remaining period of his philosophical career. But there is some peculiarity in his position.

Russell's The Analysis of Mind was published in 1921. In 1927 The Analysis of Matter appeared. This book is very important in that it contains his most mature ideas concerning various philosophical issues. In his last philosophical writing My Philosophical Development (published in 1959) he did not have anything new to add what had already been written in The Analysis of Matter. In order to make explicit the peculiarity, mentioned in the first paragraph of this chapter, let us start with Russell's main problem, i.e., epistemological problem.

There is some controversy among critics and commentators about Russell's position in Analysis of Matter vis-a-vis in Analysis of Mind. In the Analysis of Mind Russell propounded a nonrelational theory of perception. He repudiated causal connection supposed to be existing between the subject and the object. Neutral monism held both mind and matter to be non-existent and hence denied any

relation between them. But interestingly Russell advocates very explicitly a causal theory of perception in his Analysis of Matter. This duality of mind and matter seems to be going against the theory of neutral monism. But Russell continues to call himself a neutral monist. Advocating these two divergent views at a time seems to be inconsistent philosophically.

A failure in reconciling these two apparently divergent traits in Russell's philosophy created a lot of confusions in the writings of his various commentators. W.T. Stace, for example, in his article "Russell's Neutral Monism" talks as though Russell in Analysis of Matter drifted from his position of Analysis of Mind. He says, "The Analysis of Matter (1928), though it is true that it contains some elements of neutral monism, belongs on the whole to a later phase of Russell's tought, in which scientific realism and the causal theory of perception have finally gained the upper hand. I understand that Russell himself does not recognize that there is any important difference between what I would thus distinguish as two phases of his thought".[1] On the other hand Ronald Jager, the author of The Development of Bertrand Russell's Philosophy does not see any important difference in the philosophies

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1. W.T. Stace, The Philosophy of Bertrand Russell, ed. by P.A. Schilpp (1946), "Russell's Neutral Monism". The Library of Living Philosophers, Inc., Evanston, Illinois, P. 355.

envisaged in two books. He contrasts Russell's neutral monistic theory of perception with that which he (Russell) advocated as being a phenomenalist, implying as if the neutral monism were a single theory. Writes Jager, "The theory of perception which he (Russell) builds into neutral monism is different in fundamental respects from the theory built earlier into his logical atomism".[2] It appears that for Jager there is some unitary doctrine of perception which Russell adheres to in his two consecutive books which for him (Jager) differ in some fundamental respects with his earlier philosophy.

Without consulting the above-mentioned commentators if we go through independently through Russell's two books, Analysis of Mind and Analysis of Matter, it becomes clear that the epistemology of the latter book is radically different from his earlier book. Moreover the two are radically dissimilar from his (Russell's) phenomenalism. Again some statements of Russell baffle us to get any clear picture of his stand. One such statement is made in his "Reply to Criticism" contributed to the Philosophy of Bertrand Russell (ed. by P.A. Schilpp). Refferring to the criticism made by Stace in his article "Russell's Neutral Monism . Russell says,

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2. Ronald Jager, The Development of Bertrand Russell's Philosophy, London : George Allen & Unwin Ltd. (1972) P. 354.

"I am rather sorry that he (Stace) excluded the Analysis of Matter from the scope of his discussion, because, although there is some change of view in this book, in the main there is a fuller and more careful statement of theories not very different from those of the Analysis of Mind. I cannot understand why Mr. Stace holds that neutral monism must not regard physical objects as causes of sense data".[3]

The puzzle, it seems, can be resolved by distinguishing the epistemology of neutral monism from its metaphysics. It may be said that Russell became epistemologically a causalist while metaphysically persisting as a neutral monist. It is generally presumed that a non-relational theory of knowledge is a logical concomitant of the doctrine of neutral monism as it denies the existence of dual realities of mind and matter which supposedly come in relation to each other to constitute knowledge. But in the case of Russell this presumption is not applicable. Russell was well-acquainted with the contemporary development of physics. Various considerations from the quantam physics and theory of relativity enabled him to develop an ontology from which he was able to derive a causal theory of knowledge without indulging in any inconsistency. Perhaps, again, it is physics which

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3. Bertrand Russell, "Reply to Criticisms", The Philosophy of Bertrand Russell, ed. by P.A. Schilpp, The Library of Living Philosophers, INC, Evanston, Illinois (1946), pp. 706-7.

led him to adopt a causal theory abondoning his non-relational theory of knowledge which he advocated at the penultimate stage of his philosophical career. He seems to have thought this theory (causal theory) to be more in conformity with the results of physics than the non-relational one. Let us clarify this point.

Physics tells us that knowledge occurs when some light currents proceed from an outside physical object and strike the nervous system of the percipient. These rays send a message to the brain on which the image of the object is imprinted. This interpretation of knowledge certainly involves inference. But inferences are indespensible so long as we do not want to plunge into solipsism. Phenomenalism as well as neutral monism admitted inferences when they include among the sensations those that were not one's data at a given moment. Russell thinks the causal theory a good scientific theory. In his Analysis of Matter he writes, "It (causal theory) has... all the merits of a good scientific theory - i.e. its verifiable consequences are never found to be false".[4] How he was concerned to conform his view with physics becomes clear from his statement "... physics might be expected to collapse if perceptions have no

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4. Bertrand Russell, The Analysis of Matter (1954), George Allen And Unwin Ltd., Ruskin House Museum Street, London, p. 197.

external causes".[5]

Incidentally we may quote here a passage from his writings in order to show how Russell considers inference to be indespensible for philosophical discussion. In reply to the criticism made by Stace (Stace commented that Russell's attempt to construct matter out of verifiables only turns out to be nothing but a fraud) Russell wrote : "The question arises : What is meant by 'Verifiables ? ' If it means 'things that I experience', or things that human beings experience', then, I will admit, I do not see how to construct out of such materials alone a world that we can soberly believe to be complete. I will also admit that, at times, I have hoped to find such materials sufficient. I still hold that they are sufficient for everything that is empirically verifiable. But I have found that no one, not even the most emphatic empiricist, is content with what can be empirically verified. It has gradually become clear to me that empiricists (including, at times, my former self) allow a great many shaky inferences, and shrin from much valid analysis, in order to reconcile there faith in empiricism with every-day beliefs which they are not prepared to abandon. We all believe in other people, cats, and dogs, chairs and tables, and even other side of the moon.

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5. Ibid, p. 197.

My real problem is : What are the minimum assumptions which will justify such beliefs ?

"But the word 'verifiables' is capable of meaning something wider than 'things that human beings experience', and does not mean something wider in the ordinary usage of science. Science, when it believes itself to have established a causal law, allows itself to believe in things which cannot be observed, and so does common sense. We conclude without hesitation that so-and-so is angry when he behaves in a certain way, although we cannot observe his anger. In a sense, an entity may be said to be 'verifiable' when it has been inferred in accordance with the recognized canons of scientific method. In this sense, I do wish to dispense with 'unverifiable' entities. This is my reason for doing without matter, points, instants etc. It is my reason for the use of Occam's razor, since, wherever that implement can shave away an entity, the inference to the entity in question thereby loses its force. All my somewhat elaborate constructions are designed to reduce inferred entities to a minimum. But if entities are validly inferred, I do not think they can be rightly called 'unverifiables' in the sense in which this word is commonly used in science".[6]

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6. Op.Cit. pp. 707-8.

The above quotation is a lucid clarification of Russell's view about inference and I think if it is understood correctly it would do away with many confusions and questions raised by commentators.

In Analysis of Matter Russell reformulated his problem of perception by first taking up the question of knowing. In his Problems of Philosophy and Our Knowledge of the External World, he described the relation occurring between the knower and the known as 'acquaintance' meaning by it a simple and straight forward encounter between the subject and its object. But when in Analysis of Mind, he came to adhere to the theory of neutral monism, he dropped altogether the notion of acquaintance. In his view there was no independent mind to be acquainted with the object. Therefore, the whole notion of acquaintance was redundant. The data or the sensations were in themselves knowledge in being accompanied with mnemic phenomena.

But again when he comes to his Analysis of Matter, he becomes sceptical about the feasibility of this view. His inclination towards the basic distinction and duality between the act of knowing and the object of it is evident. In visual and tactual experiences, the duality is irreducible. He considers that memory also provides the instance in which the distinction between the act of recollecting

and the object recollected is conspicuous. Jamesiean theory of neutral monism is now repugnant to Russell in as much as it (neutral monism) denied this duality.

With the reappearance of the relation of 'knowing', the 'data' which was dropped in the Analysis of Mind is resurrected. It is, however, given the name 'percepts', and its concept is also somewhat modified. It is no longer that mysterious simple entity necessarily known by virtue of being given in experience. Russell now defines it as "those matters of fact of which, independently of inference, we have a right to feel most nearly certain".[7] They may even be true or false. Incidentally, it may be recalled that Russell in his Problems of Philosophy and External World has emphasised upon the point that sense-data are neither true nor false. It is the beliefs or propositions about them which are either true or false.

Now he talks as if to consider them to be proved to be true or false. He says in his An Inquiary into Meaning and Truth, "The essential characteristic of a dataum is that it is not inferred. It may not be true and we may not feel certain that it is true".[8] An example is that of

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7. Bertrand Russell, Human knowledge - Its Scope and Limits. London : George Allen and Unwin Ltd. (1948), p. 186.
8. Bertrand Russell, An Inquiary into Meaning and Truth (1966 - Seventh Impression), London : George Allen and Unwin Ltd, p. 124.

of memory. We know that sometimes our memory betrays us. But still we believe in many things on the basis of memory alone. Russell also has given the example of faint perceptions. Suppose, we are listening to a sound which is growing more distant, e.g., of a receding aeroplane. At one time we are sure that we hear the sound but at another time we are sure that we do not hear. During intermediary periods we still hear it, but cannot be sure about it. Thus there is a whole variety of sounds ranging from more certain to less certain and altogether uncertain. For Russell, all of these would be our data or percepts.

As to the nature of percepts, the problem is that whether only the bare sensation should be treated as a particular percept or the element of interpretation or inference which usually spontaneously accompanies it should also be included in it. In almost every case of perception, some element of interpretation or inference is inevitably present. This is evident from the fact that the effects of a given sensory stimulus upon two men with indistinguishable sense-organs but with different history of experiences are different. A child who is still in the stage of learning the words identifies each individual letter and only after that he is able to read the word. But a man who is habitual of reading goes quite unconsciously over the letters.

The problem is that the mnemic associations upon which the 'interpretation' depends, although frequent and usual, are, however, by no means invariable. This would mean that if we allow the interpretation to be included in datum, there would be certain perceptions which would be erroneous. For example, in the case of seeing a mirage the seeing of water is interpreted when we associate with it also the tactual sensation which is characteristic of water. Clearly, the occurrence in as much as it is seen is quite genuine. But it becomes erroneous when we add to it its usual mnemic elements. Thus, inclusion of the interpreted element in data indiscriminately would amount to providing room for some perceptions being erroneous.

But on the other hand the bare sensation is not usually directly experienced. In most of our experiences it is accompanied with its mnemic associates which can be separated from it only by an elaborate theory. And in the process, it may be feared that the bare sense-datum remains no longer a datum but become a hypothetical entity in being inferred from what is actually experienced, i.e., interpreted dataum.

This last argument seems to Russell to be conclusive. Perception, he says, must include those elements which are irreducibly physiological. But it need not on that

account include those elements which come, or can be made to come within the sphere of conscious inference. For example, the inference of a substantial entity 'dog' from his barking is conscious, or at any rate, is easily capable of being made conscious. Thus, in this case, the bare noise of barking should be treated as datum instead of its accompanying something else along with it.

Finally Russell refutes instrumentalists who claim that the very notion of pure datum is impossible as all our knowledge involves inevitably and invariably some element of inference. When we say 'look, there is an eclipse of the moon', a lot of our knowledge about astronomy is presupposed in understanding this statement. But Russell says that this view underestimates the power of analysis. There is no denying that our everyday interpretations of perceptive experiences and even all our everyday words embody theories. But, he contends, "it is not impossible to whittle away the element of interpretation, or to invent an artificial language involving a minimum theory. By these methods we can approach asymptomatically to the pure datum".[9]

That there must be a pure datum, is, for Russell, a logically irrefutable consequence of the fact that

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9. Ibid, p. 124.

perceptions give rise to new knowledge. Suppose, for instance, that we have hitherto a certain group of theories but we now find that somewhere among these theories there is a mistake. This means that there is something which is inexplicable in its terms, i.e., not deducible from the previous theory. And this something would be a new datum for our knowledge of matters of fact since 'datum' means simply "a piece of knowledge that is not deduced".[10]

Russell's renewed faith in the 'data' and 'relation' (between subject and object) amounted to a retreat not only to his phenomenalistic position of External World but, in very important respects, to his original dualistic position of the Problems of Philosophy. In the Analysis of Matter he revives three-term theory of knowledge (this theory was first advocated in his Problems of Philosophy). According to this theory (Russell also calls this theory 'Causal theory'), subject confronts percepts which reveal the structure of physical things which causes them from outside. The basic difference between the two positions is that while the former subject was a mind, a subsisting entity, and object a material substance, in the latter both are made up of the same stuff. Russell still retains the metaphysical position of neutrality of stuff. But subject and object are qualitatively the same realities. They are what Russell

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10. Op. Cit. p. 124.

calls 'events' which may roughly be understood by the term 'energy-units' to which Russell arrived through theory of relativity.

According to Russell, at every moment of our cosmos, there are occurring an infinite number of events some of whom, at a particular moment, fall within the experiential field of a brain which is itself a composition of events. The occurrence of an event in the experiential field of a brain causes to start a process of events which ends up in the nervous system of the body (itself a collection of events). From the point upon perceiver's body where this process terminates, another process of events starts which passing through the nerves reaches at brain and produces an event into it. It is this last event in the brain which is to be addressed as the 'experiencing of the object' belonging to the world external to the perceipent's body. It is 'percept' that is related to the original event through causal laws which are studied in physics.

The entire process which constitutes knowing -- the external event which is causing the process, the brain and the percept — all are termed by Russell as 'events'. So what the subject knows is percept. This means that the knowledge of external events is inferred and therefore open to doubt. Thus the gulf between the world of sense and world

of physics, of which Russell spoke in his earlier works, reappears. Russell, therefore, makes a fresh attempt to bridge this gulf by evolving arguments which can make the existance of external physical things highly probable, if not indubitably certain. Since his new attempt falls mainly within the ambit of epistemology we shall not discuss it here. Instead let us take up the essentially ontological question : What is the nature of 'percepts' and what are their physical status and also that where can they be placed in the general scheme of physical causal laws ?

We have seen Russell adopted dualistic theory of perception. It is, however, different from Locke's or critical realist's dualism.[11] Russell's view differs from the former in that he does not believe in the mind or body as substances which make contact with each other through certain 'ideas'. Russell's view of the world is such that there are in it an infinite number of physical entities which he calls 'events'. These events are arranged into

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11. Locke held that perception consists in the mind's taking cognizance of physical objects through certain qualities which depend upon the former but are product of the latter. Physical things comprise primary qualities and these produce secondary qualities after coming in contact with the mind. There were thus, in the whole process, three terms, viz., the mind, the physical things and secondary qualities. Critical realists uphold the same three terms with certain modifications.

groups. A group consists of structurally similar or semi-similar events which are arranged in a symmetrical order having a centre. When this centre happens to fall within the purview of a brain (or a camera, or a dictaphone) the occurrence called 'perception' takes place.

Suppose, for example, in a dark night a monetary flash is experienced by a person. Here infact what happens is that a process of light waves stemmed from a 'centre' and reached the perceiver's eye which is the collection of ontologically similar centres. After reaching the eyes the process enters into a different sort of region which is physiological, comprising the optic nerves and a part of brain. In this physiological region, the process observes and obeys different sort of laws and the event which comes in the end of this process further modifies its character having been already modified when the process reached the eyes.

There are thus three fundamental terms in this process. First is the event which occured in the space outside the percepient's body and from which the process started. The second is the event which occured when the process reached percepient's eyes which may be called stimulus-event. The third event which is 'percept' is the last event which occurs in the brain when the physiological constitution of perceiver is stimulated. Thus, to the psychological event called

'percept' correspond two other sorts of events, namely, cerebral or physiological and the physical events.

The uniqueness of Russell's view is that he believes percepts to be inside the brain, to be parts of brain. This was a radical view quite unprecedented in the whole history of philosophy. Philosophers who hold a causal theory of perceptions are almost unanimous upon the point that things are in the time and space while the thoughts outside them. But Russell rejects this view saying that it is based upon two false assumptions : one is that of thinking the percepts to be located in the physical objects and the other is treating brain as a substantial physical thing. Russell's position, on the other hand, is that the physical object and brain both are events arranged into groups. When an event becomes part of the group forming the brain it comes to be called a percept.

In his Analysis of Matter Russell clearly stated that a percept considered physically, is not very different from other physical events.[12] His aim in showing the physical character of percepts was to prove the fundamental contention of his philosophy of this stage that our making a qualitative distinction between the physical things and psychological thoughts is both logically and scientifically untenable.

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12. Op. Cit., p. 263.

They are different only in following two different kinds of laws being placed in two different regions of the same reality. Percepts, i.e., the thoughts are parts of our 'event-ful' world and are themselves events like the physical and cerebral events. Reality thus, according to Russell, is neither physical nor mental, it is neutral. The riddle that whether Russell remained a neutral monist or not in the last stage of his philosophical career thus gets resolved.

The discussion will be complete if the new technical term introduced in this chapter - percepts — is discussed somewhat elaborately. Many commentators have discussed this concept with some variations. But we shall discuss only Russell's own view stated in the Analysis of Matter.

Perhaps percepts are the same thing what has been earlier termed sense-data. Russell writes : "When a n umber of people are, from the standpoint of commonsense, observing the same object, there are both likenesses and differences among their percepts".[13] His problem was that of deciding what elements in a percept can be used for inference as to the existence of something other than itself and as to the nature of the inferences when they

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13. Op. Cit., p. 218.

can be drawn. We have already discussed this process in the preceding paragraphs. So we shall confine our discussion to physical status and structure of percepts.

Physical status of percepts means status of "patches of colour, noises, smells, hardness, etc., as well as perceived spatial relations." Russell holds, as has been seen earlier, the world is full of events. Often a group of these events, or some characteristic which the members of the group possess in varying degrees, is such as to suggest arrangement in an order. For example, the percepts of different people when they look at a penny may be ordered by their size and by their shape. The orders derived from different sources are roughly identical, says Russell, e.g., if we move so as to make the big drum look larger, we also move so as to make it sound louder. "In this way we construct a space containing both percipients and physical objects; but percepts have a twofold location in this space, namely that of the percipient and that of the physical object. Keeping one half of this location fixed, we obtain the view of the world from a given place; keeping the other half fixed, we obtain the views of a given physical object from different places. The first of these is a percipient, the second is a physical object."

For Russell, the gulf between percepts and physics is not a gulf as regards intrinsic quality. Because he says

we do not know anything of the intrinsic quality of the physical world and, therefore, do not know whether it is, or is not very different from that of percepts. The gulf is as to what we know about the two realms. We know the quality of percepts, but we do not know their laws so well as we could wish. Says Russell : "we know the laws of physical world, in so far as these are mathematical, preety well, but we know nothing else about it. If there is any intellectual difficulty in supposing that the physical world is intrinsically quite unlike that of percepts, this is a reason for supposing that there is not this complete unlikeness. And there is a certain ground for such a view, in the fact that percepts are part of the physical world, and are the only part that we can know without the help of rather elaborate and difficult inferences".[14]

As to the structure of percepts, Russell says that a percept may have parts which are not percepts. Moreover he says that the structure of a percept may be only discoverable by inference. He also says that the percept contains parts that are not process and these parts are imperceptible.

Russell's main problem was epistemological. In course of his epistemological discussion he developed

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14. Ibid, p. 264.

several ontological theories which have been discussed in this thesis. The question naturally arises : Did Russell succeed in his endeavour ? Many writers have tried to evaluate his work in many ways. But after a close scrutiny it appears that for judging a philosophical endeavour general scientific yardstick should not be used. Perhaps the better yardstick would be seriousness and sincerety of the thinker to solve the issue at hand. If the validity of this criterion is admitted, we can without an iota of hesitation say that Russell indeed was successful in solving the problem confronted by him. In the history of philosophy there rarely appeared any philosopher who was so self-critical and outspoken. Whenever he could detect any flaw in his previous view he did not dither to point out that one and rectify immediately. He kept h imself abreast of most recent developments of physics and psychology and tried to develop his theory striking a balance between science, commonsense and intellectual thinking. He was a philosopher who frankly wrote : "My intellectual journeys have been, in some respects, dis-appointing".

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